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THE SPHERE

Vol. CLXVIII No. 2191 — WITH WHICH IS INCORPORATED THE GRAPHIC — JANUARY 17 1942

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Volume CLXVIII No. 2191 The SPHERE, London, January 17, 1942

THE SPHERE

With which is incorporated "THE GRAPHIC"

The Empire's Illustrated Weekly

London, January 17, 1942

THE BRITISH PRIME MINISTER IN THE AMERICAN CAPITAL: MR. WINSTON CHURCHILL MAKING HIS HISTORIC ADDRESS TO BOTH HOUSES OF THE UNITED STATES CONGRESS IN WASHINGTON ON FRIDAY, DECEMBER 26, 1941

The picture reproduced here has just arrived in England from the United States: it was taken on the historic occasion when Mr. Churchill made his electrifying speech to both Houses of Congress, during his visit to Washington to discuss problems of co-ordination. The Prime Minister is standing behind a veritable battery of microphones which conveyed his words clearly and distinctly to all corners of the world; behind him is seated Mr. William P. Cole, Junior (Speaker, *pro tem.*, of the House); on the right is Mr. Henry A. Wallace, Vice-President; and on the left, below, is Senator Alban W. Barkley, Leader of the Senate Majority. It was Mr. Wallace who introduced Mr. Churchill to both Houses; the speech made by the British Prime Minister on this occasion has now passed into world history

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A WAR NEWSLETTER —No. 124

1, NEW OXFORD STREET, W.C.1

Man-Power in Rural Areas.

—Long after this war is over, we shall, ruefully perhaps, admit from the evidence supplied by a thousand war histories that our victory might have been accelerated, and much anxiety and money saved, if we had acted differently in our policy at home and abroad, and even in our strategy. That is no wild or large assertion! It is human to err, and in the fog of war this failing of humanity must still remain to be reckoned with. We shall not, nor will posterity, underrate the greatness of our effort to retrieve our hopeless unpreparedness in 1939, in the face of fearful difficulties and dangers, and working upon a political structure, pleasant and adequately efficient in times of peace but more than once proven very difficult to adapt to the urgent needs of total war. I have been studying some provisional statistics of man-power in our rural area which is still untapped for military defence recruitment and may be available for Home Guard compulsion. These figures reveal how very large a proportion of the men of military age in the third year of war still enjoy total immunity from any sort of military or defence service. I find that in our small village there are still over thirty men, ranging from nineteen to fifty years of age, who, pursuing their occupations of agriculture or forestry, are no harder worked than are men on Government building contracts, and who yet have never offered or been impressed for any type of defence service. But the statistics reveal still more startling facts. In our remote, rural community, which lies 18 miles from the nearest military objective, the proportion of men of military age who are engaged in such defence services as special constables, fire service and A.R.P. is about equal to the number of those recruited from time to time for the Home Guard, and unquestionably out of all proportion to the estimable or proven risks from enemy action against which their services have been recruited. I ask myself whether we shall one day judge that an infinitely wiser decision would have been to have set up in June 1940, when the Home Guard was established, a complete chain of executive county dictators under the regional dictators established in skeleton for the emergency of invasion, and to have placed in the hands of those county dictators the planning and organising of man-power for defence of their counties according to the peculiar conditions and needs inherent in each—subdividing possibly each county into rural and industrial or residential zones. To these dictators would have been confided the duty of working out the relative importance of police services, fire duties, A.R.P. and Home Guard according to the geographical and other features of the county. Theirs it would have been to amalgamate, if it seemed best to them, A.R.P., fire service and Home Guard, and to give to each and all their services the same opportunities to acquire the first principles of military training for the last emergency. Their functions would have implied reference back to several Government departments, but it would have been perfectly feasible to canalise such references through a county directors' head office in Whitehall. It grows more and more clear that the needs of and conditions of a rural area in a southern or eastern county may bear no relation to those of a Midland or northern county, and that a purely agricultural county cannot be legislated for by the standards applied to a highly industrialised county. In many purely rural areas there is no justification at all for separating into watertight compartments the police, fire, A.R.P. and Home Guard services. In that fact are set the major muddles and obstructions which all through the war have beset the defence services and obstructed the wisest use of man-power in rural areas.

WHEN THE AMERICAN ARMY WAS LAST IN THE BRITISH ISLES

It has been announced that an Expeditionary Force from the United States is to land in Great Britain. This will, in all probability, consist of Army Divisions, fighter and bomber air squadrons and naval units. In the last war 2,059,000 American soldiers crossed the Atlantic for service overseas, and not a transport was lost! The picture above was taken in the year 1917: it shows the Stars and Stripes being "dipped" before the late King George V and before Queen Mary (on right) in London during the last war

Berlin Diary: My Postscript.

—I add my postscript to the long symposium on Mr. Shirer's best-seller. That it is exciting, disturbing, heartbreaking, all these claims I endorse. The abiding impression left on me was not so much of the merits of the book as literature as of its importance as a document of a period in our social history which may one day be judged to have been sheer international lunacy. Not political lunacy only, for that is already proven, but social lunacy. The book calls in question the whole theory of the aims and objects of broadcasting as a social benefit. Mr. Shirer was a servant of the public of several continents. In his efforts to fulfil the trust imposed on him he never spared himself. He was where he was (in one of a dozen capitals) to "cover" the big events of Hitler's rise to world power, and of the aggressions of dictators. For that trust, he turned his nights into days, sacrificed his health, his family, his sleep and his possessions, and usually gave the public what it wanted. But, supposing, instead of all those frantic Atlantic telephone calls, those last-minute evasions by air, those fearful, heart-straining shifts and plans and small-hour coffee-housings, those dangerous spyings upon murder and outrage, he had gone quietly to bed, would the world have lost very much that it could ill afford to lose? If those "covering" broadcast pictures had never been thrown on the screen of ether with such fearful punctuality, would the world's right judgment of Hitler's crimes to-day be vitiated? If we and America and Prague had read of those dawn and midnight *putsches* in the soberer columns of our responsible journals forty-eight hours later, with the salient facts less tinged with the lurid colour of flame and blood terror and fury, should we have lost much of our opportunities for forming a right judgment and for making cool decisions? Who settled it (and is it decided for all time?) that *these* are the prime benefits which humanity is to derive from the curse or blessing of the invention of radio? What is historically relevant? The flames of the arson or the *fait accompli* of the blackened shell? Who dares to say that punctual local colour is of more importance than cool and calm estimation of the results of a criminal's or a madman's desperate actions? If the function of broadcasting is first and foremost *sensation* and the smart technique of "reporting," it is but oil upon the fuel of human passions and of international hatred and suspicion. It may well be that some part of the long tragedy of political cowardice, of international non-co-operation, and of universal muddled thinking had been averted (with its ratio of human suffering) if Mr. Shirer had resisted sightseeing and coffee-housing, and gone quietly to bed.

"The Sphere" in Canada.

—By the same post I received two letters from ladies in Canada; the first was from an anonymous town in Ontario and the second from Toronto. They are worth quoting for several reasons. The lady from Ontario (who receives batches of THE SPHERE from England) wrote: "The last lot of *Spheres* to arrive are dated up to October 11, and the only ones we have missed since war began are those of June last. I should like to have read the irascible letter my father-in-law in Yorkshire wrote when they told him he could not have THE SPHERE on account of paper rationing! They started up again in a very short time! He tells me he passes them round his village before sending them to me. After my children have taken to school the numbers which have some bearing on their lessons, they start on their travels to the houses of my English friends in town, and of late have made a detour to the O.C. Armoured Corps Wing of the Officers' Training Centre here (the largest O.T.C. in the British Empire), who finds the articles on tanks, etc., of great interest. Finally, the tattered remains are filed by the late O.C. of the local Regiment, a keen veteran of the last war, who uses them to lecture to the Reserve Army on modern military methods. Can you thus calculate how many chuckles of mirth and words of approval your *Newsletter* draws forth?" I thought: Advertisers may take note, and journalists comfort, at realising the very large hidden circulation of THE SPHERE in wartime. And I turned with pardonable optimism to the letter from the Toronto Ladies' Club. It ran: "Sometimes one is aghast at the vulgarity of English writers. No one is so ready as we are to criticise the foibles of our neighbours but even in wartime we should expect a knowledge of politeness. It makes those of us who in this larger world of Canada, to which we have come, bitterly ashamed of the land across the sea." You never know your luck in journalism. And why? Because you never know your readers. Well, the B.B.C. suffers the same sort of warp and woof of praise and blame. You can't please all the people all the time, or even for a fraction of the time. It is a very healthy corrective, this pen from Toronto dipped in vinegar.

Topsy-Turvy.

—My loathsome fowls have suddenly begun to lay. I am earning a dividend on the deferred stock of this company of distressing bipeds. It is abnormal in my records. I have observed for the past three years that these birds come on at Christmas and go off again when the recognised season for serious egg-laying begins in February. For more than three years I have noted a topsy-turvy revolution in the recognised seasons of cold and heat, rain and drought. The wet months have become dry, and *vice versa*; and so with cold and heat. I suppose this has happened often enough in past centuries and, since the weather variations at least cannot be charged to the war account (war rationing may account for the vagaries of the hens), I should welcome some explanation of the climatic variations of the months. For it is clear that nothing but centuries of observation of weather facts can have given the labels to the months and seasons. True, the "snowy Christmas" may have been imported with Christmas-trees from Germany to a land which more usually enjoys mild, green Christmas days. But we did not import (but we observed by experience) showers in April, hot, dry Augusts, wet Octobers, and so forth, and of late years all these fixtures have been cancelled and set at nought. August last year was our wettest month, with 5·05 inches; October registered only ·89. The rainfall for the year works out at under 34 inches, considerably below the average of the past decade, during which I have kept records. About an equal proportion fell in the two halves of the year.

THE OLD STAGER

LEADERS in the WAR EFFORT

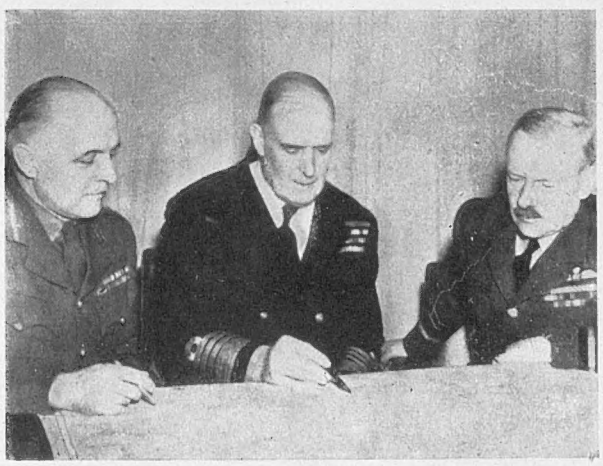
"DIRECTOR-GENERAL OF GROUND DEFENCES": Major-General C. E. Liardet, C.B., D.S.O., formerly Inspector-General of Aerodrome Defences, has just been given the post of Director-General of Ground Defences in the Air Ministry. It is reported that he will be given the title of Commander of the Royal Air Force Regiment, a corps of aerodrome defence

THE CHIEF OF FIGHTER COMMAND OF THE R.A.F. AT HEADQUARTERS: Air-Marshal Sir Sholto Douglas, K.C.B., M.C., D.F.C., is the Air Officer Commanding-in-Chief of Fighter Command. He is here seen at Headquarters with his senior officers who direct all operations of Fighter Command aircraft of the R.A.F. From left to right are: Air Commodore W. Elliot, D.F.C.; Air Commodore A. D. Cunningham, C.B., C.B.E.; Air Marshal Sir Sholto Douglas; and Air Vice-Marshal H. R. Nicholl C.B., O.B.E.

THE COMMANDER-IN-CHIEF OF THE U.S. NAVY: Admiral Ernest J. King, who was Commander of the Atlantic Fleet, is now C.-in-C. of the American Navy, and in supreme command of all naval forces operating in the Atlantic, Pacific and Asiatic waters. Hitherto he has been responsible for both surface and air operations involving the U.S. forces in the Atlantic Ocean

IN COMMAND OF THE MALAYAN NAVAL FORCES: Rear-Admiral E. J. Spooner, owing to the absence of Vice-Admiral Sir Geoffrey Layton from Singapore, is to command all the naval forces in Malaya. He was at one time in command of the *Repulse*, and has also commanded the *Vindictive*. He is fifty-four years of age and was Deputy Director of Operations at the Admiralty during the period 1932-1934; he later became Commander of the Navigation School at Portsmouth

LEADER OF AMERICAN VOLUNTEER AIRMEN IN CHINA: Colonel Claire L. Chennault, a retired U.S. Army officer, is the leader of the International Air Force in China. This is composed exclusively of airmen who have resigned from the United States Air Forces. They have already accounted for a number of Japanese warplanes

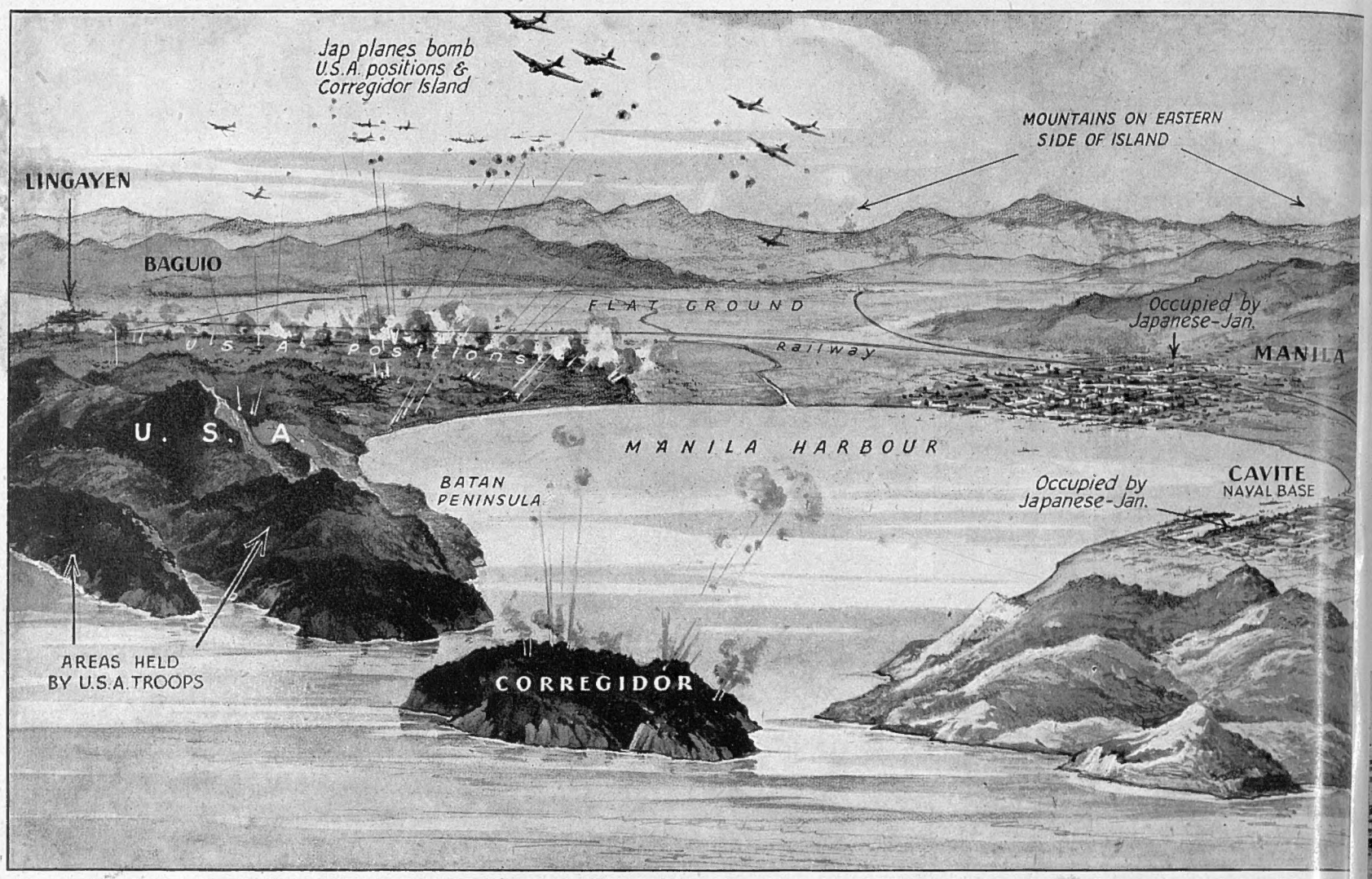


CO-ORDINATING U.S.-BRITISH WAR MOVES: The members of the British Joint Staff Mission in Washington, which is doing liaison work in the planning of the U.S.-British military moves, at the British Embassy. From left to right are: Lieut.-Gen. Sir Colville Wemyss, Admiral Sir Charles Little, and Air Marshal A. T. Harris

THE LEADER OF A NORWAY RAID: Captain Percy Todd, D.S.O., aged forty-seven, who was in charge of the recent raid on Helle Fiord. He is a gunnery expert who was awarded the D.S.M. by President Roosevelt in 1936 under a special Bill in Congress. In command of the destroyer *Wishart* in 1934, he saved 139 of the crew of the U.S. gunboat *Fulton*, ablaze in Bias Bay, China

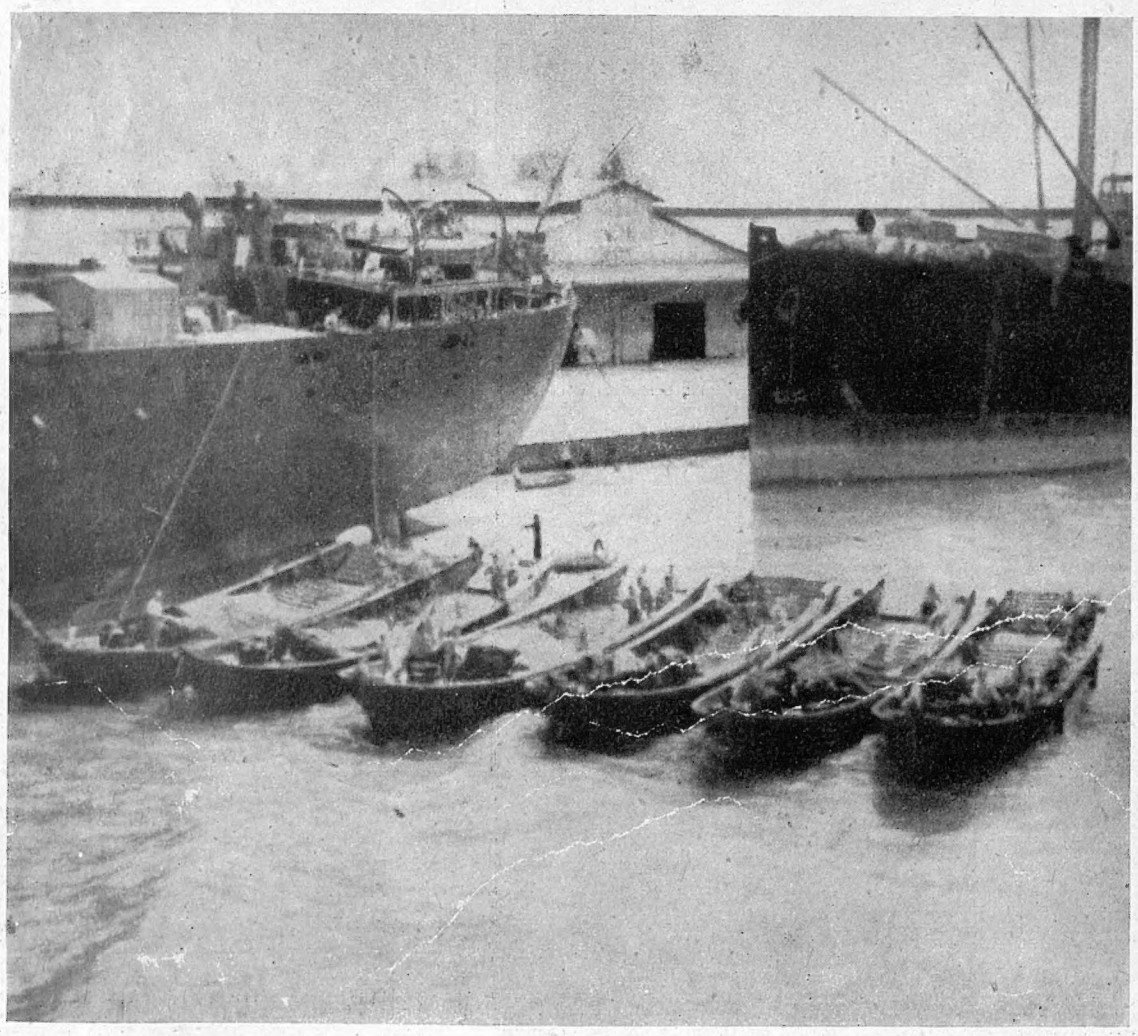
THE MAN WHO LED THE RAID ON THE LOFOTENS: Rear-Admiral Louis Henry Keppel Hamilton, known as "Turtle" Hamilton in the Navy, who led the Naval forces in the Lofoten raid, during which he celebrated his fifty-first birthday. He won the D.S.O. in the last war, and a bar to the award at Narvik. Both his father and grandfather were Admirals

THE FIGHTING IN THE PACIFIC: and the Retreat of Rommel



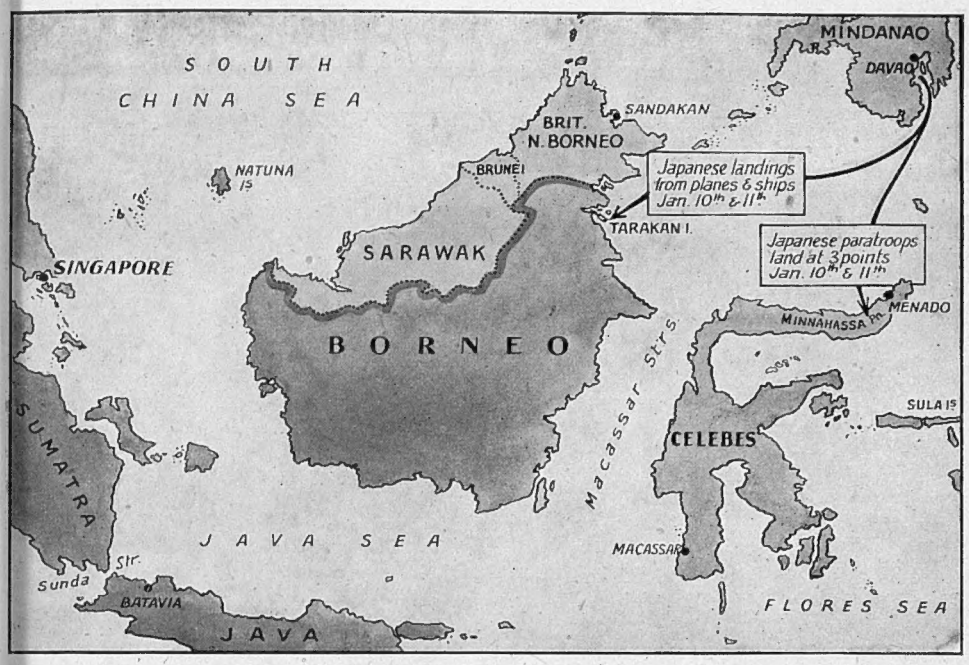
THE AMERICAN FORCES ON THE ISLAND OF LUZON RETIRE TO A STRATEGIC POSITION to the north-west of Manila, after the capture of that city, and thus link up wi other U.S. forces on Corregidor Island—*Drawing by E. G. Lambert*

After the surrender of the capital city of Manila, the mixed American and Filipino forces under General MacArthur moved round to the north-western side of Manila Bay into the hilly country lying west of the railway line from Lingayen Bay, where the main invading Japanese forces landed, and Manila city. The position includes some low ground in the forward lines, running back to low foothills and then to higher ridges backing on to the sea and to the Batan Peninsula : the latter juts southwards and forms a link with the heavily fortified Corregidor Island at the entrance to Manila Bay. This last-named position h been bombed by Japanese planes almost daily, a limited toll being taken by th anti-aircraft batteries on the island. A big attack, which included positions o the Batan Peninsula, was made by a force estimated to consist of forty-fi Japanese bombing planes. The enemy's pressure on the American lines has bee very strong, and the defence positions have been heavily bombed and machine gunned from the air



THE INVASION RAFTS USED BY THE JAPANESE : These small craft, powered by petrol engines and launched from the decks of Japanese troopships, were used by the enemy to make landings along the Indo-China coast. The Japs also used them in their assaults on the Philippines from transports off the west coast of Luzon

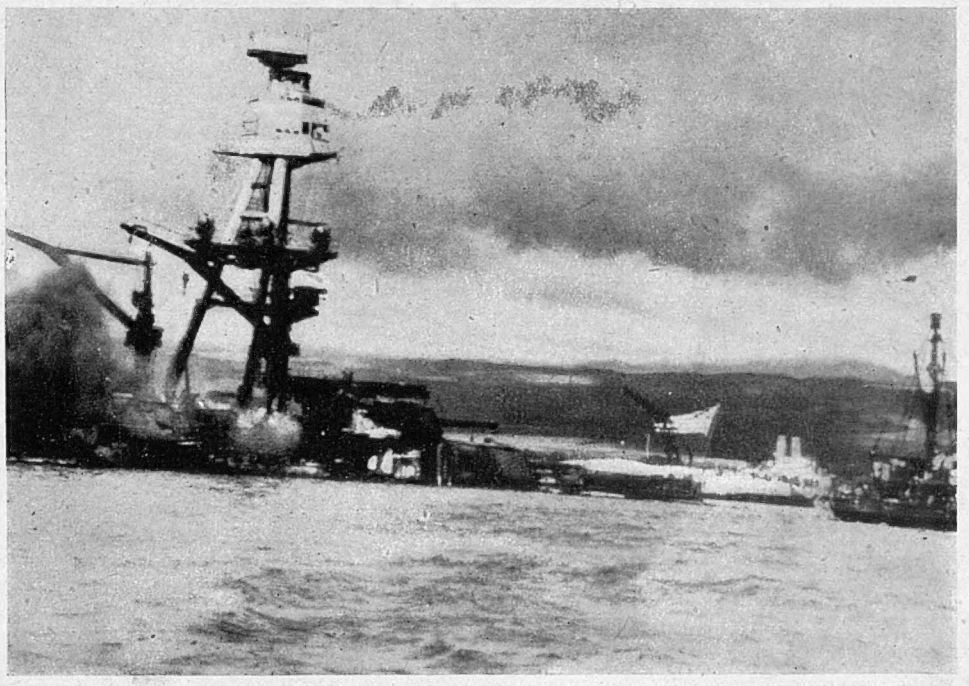
LIEUT.-GENERAL DOUGLAS MACARTHUR, a new por of the U.S. soldier who is in command of the Land and Forces in the Philippines. So great a figure has he bec throughout the United States, as the result of his he defence in the face of overwhelming numbers, that ther a demand for his rescue by air—should there arise possibility of his falling into Japanese hands



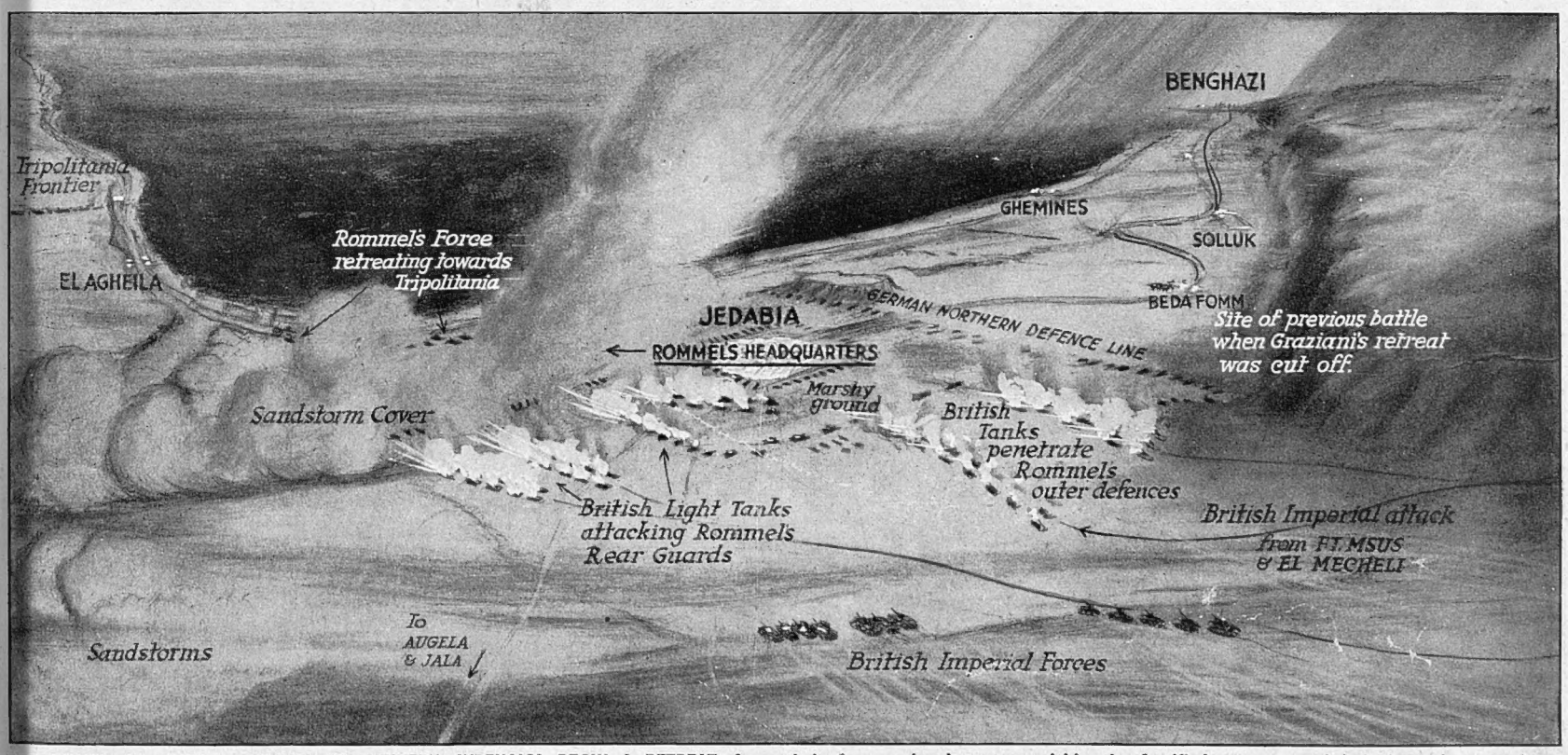
THE NEW JAPANESE ATTACK ON THE DUTCH EAST INDIES, which has now opened up two new fronts : On January 11 it was officially announced in Batavia that the Japanese had landed at two points in the Dutch East Indies, one in the Minnahassa district of the Celebes group, and another on the island of Tarakan, an oil centre of Dutch Borneo. Both the landings were fiercely contested, but the Japanese came in numbers which enabled them to consolidate landings in both cases. The Japanese transports were strongly supported by warships and aircraft. The Minnahassa district lies at the north-eastern extremity of the strangely-shaped island, which is flanked on the north by the Celebes Sea (across which the attack presumably came from the new enemy bases in the Philippines), on the east by the Moluccas, and on the west by the main mass of Dutch Borneo (from which the Celebes are separated by the Strait of Macassar). Oil is evidently the object of this fresh Japanese offensive

THE START OF MR. DUFF COOPER'S MISSION IN SINGAPORE : Taken in October last, this picture shows Lady Diana Cooper being greeted on arrival in Malaya. In the centre background is Air Marshal Sir Robert Brooke-Popham. The latter has been relieved of his Far East Command, and Mr. Duff Cooper has now been called home

A VIEW OF THE BUSY WATERFRONT AND HARBOUR AT MANILA in the Philippines, which is now in Japanese hands



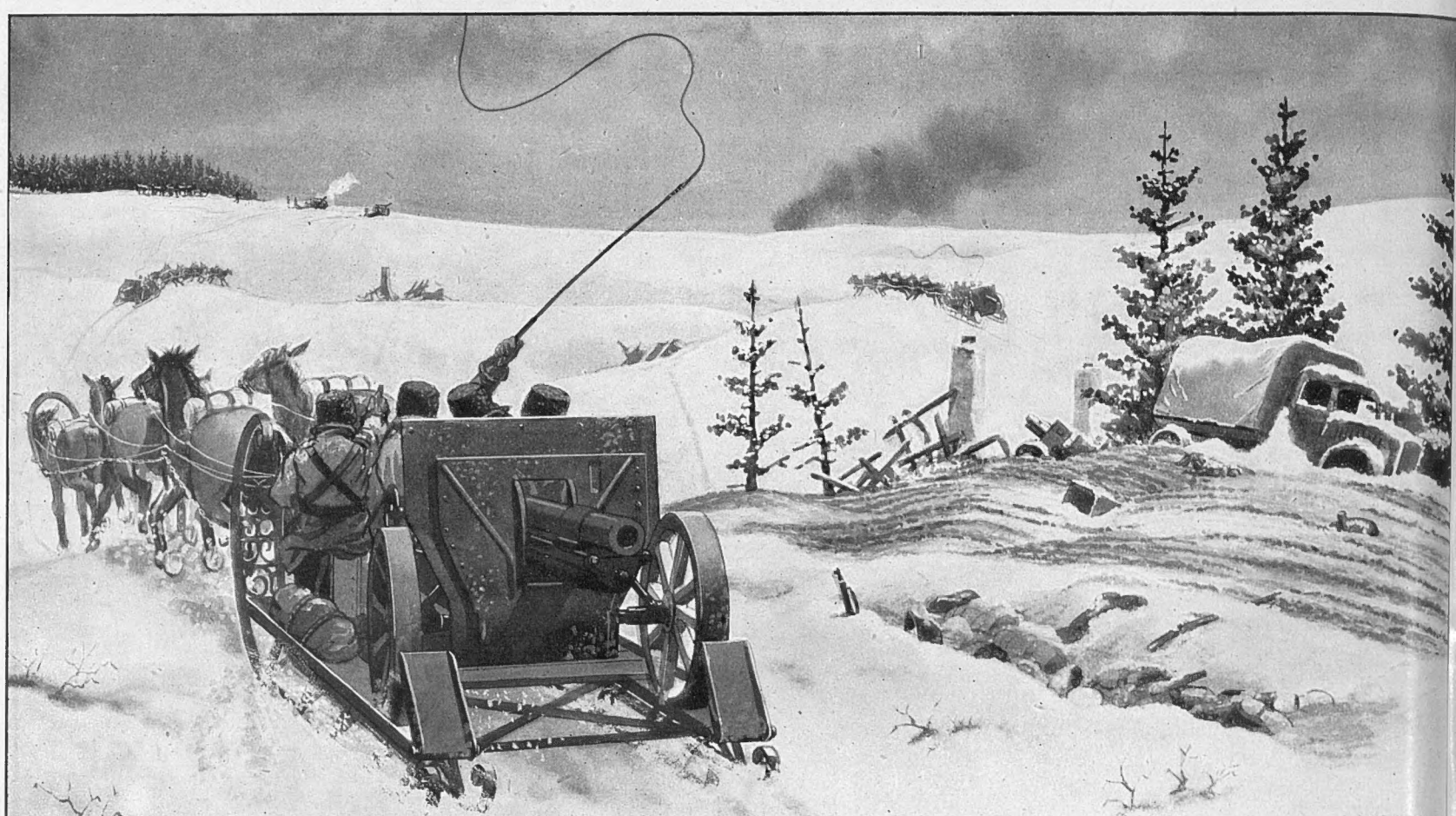
THE FIRST PICTURE FROM HAWAII OF THE WRECKED BATTLESHIP "ARIZONA" : This vessel was destroyed in the Japanese attack on Pearl Harbour on December 7, and the above is the first picture to be released by the U.S. Navy Department. Smoke still rolls from the battered hulk of the battleship, but the flag still flies. At the right of the picture may be seen the stern of a rescue vessel



THE FORCES OF GENERAL ROMMEL IN WESTERN CYRENAICA BEGIN A RETREAT from their former headquarters within the fortified area around Jedabia and are assisted by a desert sandstorm during subsequent operations—*Drawing by Percy Home*

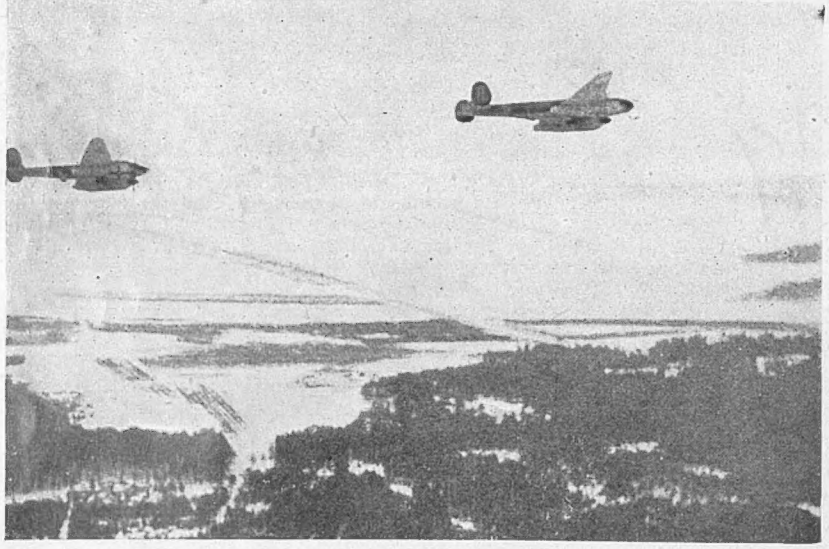
At the opening of this month, General Rommel was consolidating a defensive area around the desert town of Jedabia, with forces of British light tanks harassing and attacking the remnants of the German and Italian Cyrenaican armies. He held a position stretching, on the north, from the shore of the Gulf of Sirte to the hills of the Cyrenaican plateau : this was to meet any British attack from the direction of Benghazi. To right and left of Jedabia were stretches of flat ground reduced to slippery mud by the incessant rains. Light armoured forces were thrown out as a screen : these were penetrated to a considerable depth by British Imperial forces reaching the Jedabia area from the direction of Fort Msus and El Mecheli. Between the 7th and 9th of this month it became evident that a retreat from this position was being developed by Rommel. Advanced enemy forces were stated to be moving in the direction of El Agheila under cover of the sandstorms which were blowing from day to day along the coastal area. British light tanks set off in pursuit, but were hampered by the sticky conditions of the desert. The German rear-guards were attacked, and at the same time the R.A.F. effectively bombed El Agheila, where the single main road runs towards Tripolitania

RUSSIA'S NEW WINTER ARMY: And the Turn of the Tide at Tula



THE NEW METHOD OF TRANSPORTATION IMPOSED ON THE RUSSIANS BY THE WINTRY CONDITIONS AND DEEP, FROZEN SNOW: Light field-guns being raced up to the fighting line by horse-drawn sleighs—*Drawing by L. Ashwell Wood*

The Russians, in their advance against the retreating German armies on the Central sectors, have brought into play their customary winter equipment to good advantage. In the above drawing we show how light field-guns, being taken up to support the front-line infantry, are transported on horse-drawn sleighs. The runners and stage have been reinforced to take the weight, which is distributed evenly thus affording quick movement over the frozen snow. The roads, which a few months ago were quagmires, are now frozen into huge ruts which render ordinary mechanised transport impossible. The Russians' intimate knowledge of their own country enables these sleighs and guns to cover the rolling plains without the use of roads. Frozen bodies of Germans are found everywhere throughout the countryside, together with their abandoned lorries, guns and tanks. 1812 with a vengeance!



THE EPIC DEFENCE OF MOSCOW: Soviet bombers setting out for the attack on German tank formations at the approaches to the capital

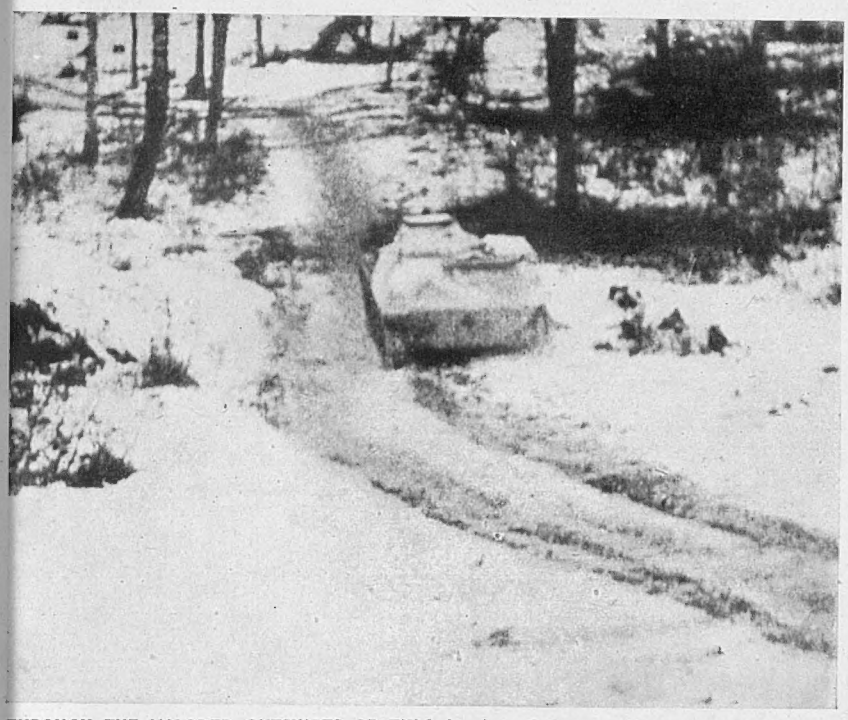
MEMBERS OF THE MOSCOW YOUNG COMMUNISTS LEAGUE digging anti-tank defences in the snow in front of the city as the enemy approached

MOSCOW ARMS WORKERS ENGAGED UPON THEIR VITAL TASK to the sound of the guns near the city: Testing and examining completed automatic rifles as they are received from the factory

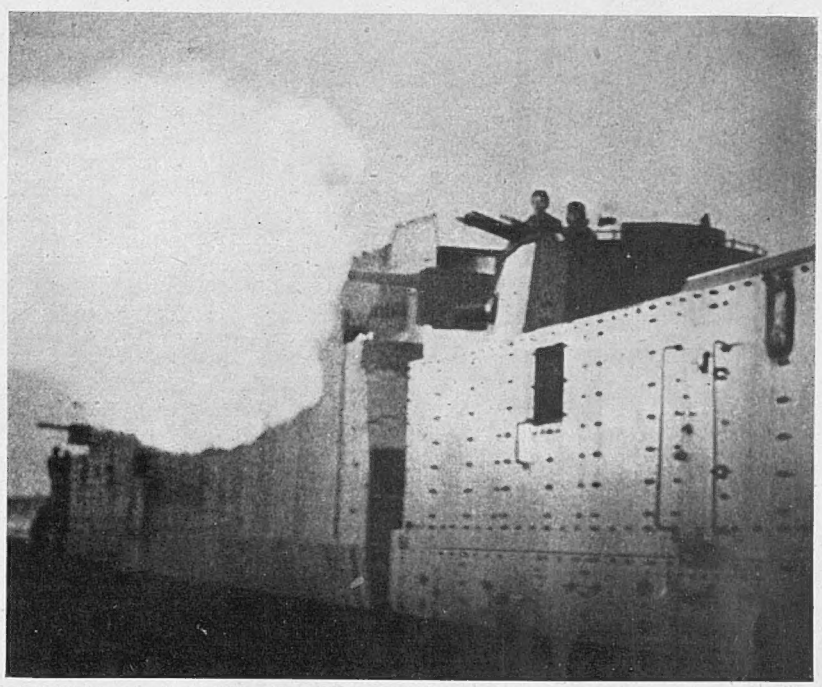
IN A BRIEF LULL DURING THE FIGHTING, decorations are awarded to Soviet soldiers who had distinguished themselves in the encounters which led to the repulse of the Germans before Moscow

THE TURN OF THE TIDE AT TULA : The Red Army have reoccupied the town, and a Soviet commander points the way for the next advance

IN THE OPEN COUNTRY BEYOND TULA, a Red Army heavy tank, camouflaged with white paint, crashes forward to the attack



THROUGH THE WOODED OUTSKIRTS OF TULA lumber the attacking Soviet tanks



THE GUNS OF A SOVIET ARMOURED TRAIN open up on the German positions: Another method of attack in the Tula offensive

RED ARMY OFFICERS DIRECTING OPERATIONS : The photographs on this page all come from Tula. It was here—at the last big town before Moscow—that the German retreat began, and that the Red Army's counter-attacks eventually developed into a sweeping offensive which is still continuing and which threatens a major disaster to the German hordes

RUSSIA'S WINTER ARMY—Special Soviet ski troops being hauled into action by tanks—*Drawing by W. G. Whitaker*

The Germans in their retreat are now being pursued by specially-equipped troops of the Red Army who have been equipped with skis. These picked men are hurried to the scene of action either by lorries or tanks in the manner shown. When near the enemy, the ski troops then break away over the snow-covered stretches to the battlefront. Their carbines or tommy-guns have been proving very effective

THE CLOSED CONTINENT AND ITS LESSON

With the Entry of the United States into the War, We Can Now Have Very Little Contact, and Few "Peep-holes," in the Continental Countries Now Under the Nazi Yoke

By FERDINAND TUOHY

WHEN Napoleon's Continental System was at its height, the European mainland may have been as closed to Britain as it now is; assuredly at no other period was it ever so sealed. The termination of American presence in all Axis and Axis-controlled countries has pulled down a big blind on Hitler's temporary Continent. The duties which the Americans performed for their own nationals, and for ours, have been assumed by the Swiss and other ready helpers, but in the matter of observing from close up "what goes on" there can only be registered a distinct loss to the Allies. The Americans were among the keenest and most objective of observers. Henceforth we must rely on reduced facilities, on smaller apertures.

MAJOR RANDOLPH CHURCHILL RETURNS TO ENGLAND: The Prime Minister's son has been on service in the Middle East (where, incidentally, it was thought by some that he was acting as one of the "Military Spokesmen" in Cairo—this was not so). He returned to London by air a few days ago, partly on duty and partly on leave, and was met at the aerodrome by his wife. Later, Major Churchill paid a special visit to the country for a first glimpse at his newly-born son and heir

The present position offers no comparison with 1914-1918, when even at the height of the war Allied nationals could still journey widely over Europe. At a pinch it was possible to enjoy a winter-sports holiday in Switzerland and to bask in the Riviera sun! Spain was another enticement to rare ones able to secure the ways and means of wartime travel. All Scandinavia, too, was available, although the part of wisdom was to enter at one point only: Bergen. Holland could be reached at some peril; Italy at none at all.

There was nothing (save permits and cash) to stop nationals of both sides consorting with Mata Haris and "neutral business men" in such separated centres as Amsterdam, Barcelona, Copenhagen and Zürich. A continuous though re-trained *va-et-vient* was the order of the day. Yet nationals of the Central Powers were less able to circulate than those of the Allies. If the first sprawled over the Balkans and much of Eastern Europe, the Allies had the run of most territory west of a line Dunkirk-Athens. The enemy could venture only into Switzerland and (with more difficulty) Spain. But the effect was that each side had a many-sided window through which to observe his opponent, and that information flowed freely enough in consequence.

What a different tale to-day! Not the least valuable yield to Hitler of his allegedly impregnable line from Kirkenes to Bayonne is the degree of blindfolding of Britain that it produces. Neither we nor our many Allies can circulate behind it. We have to be satisfied with a dwindling few fixed points of observation. Lisbon is the most directly attainable. No through flying to Switzerland is possible, and there is none to Spain. Flights to Stockholm are almost of stratospheric rarity, while to reach Istanbul one has to set out from Egypt. About the only remaining way of ingress to the Continent is that which Mr. Eden took to Russia recently.

As for the few thousand British subjects still abroad, and out of concentration and prisoner-of-war camps, practically all come within the intimidating reach or influence of the Gestapo. Not that one relies extensively on such ones for collecting information in wartime; still the fact is that Hitler has given us a hard job which is not going to become easier now that the Americans have gone. There may not have been an ambassador at the U.S. Embassy in Berlin, but there was a staff attached of well over a hundred who were not being unobservant.

American embassies, legations and consulates have had to pack up in all Axis-directed lands, and with them vanishes a flow of "intelligence" some of which must have found its way to Britain *via* Washington. The United States are now in much the same boat as ourselves in so far as Continental representation is concerned, since their continuing nominally at peace with Finland, Hungary and Rumania will not deter Hitler from extinguishing American posts in those satellites. He has always done this without hesitation when there has been risk of leakage. He has even been trying to get Admiral Leahy removed from Vichy. No doubt he would also like to see the local Canadian and South African representatives sent about their business, to say nothing of the British and American Ministers in that curious oasis, Vatican City, which is undergoing its test as an O.P. in general war.

American newspaper men and broadcasters are others who will be missed. There is some resemblance between a sound international correspondent and an untrained intelligence officer, and even if American correspondents, cameramen and broadcasters had to work under the Axis censorship, they were none the less able to slip through information liable to be of use to certain Government departments of the Allies. If they diffused anything calculated to weaken the Axis war effort, they were shown the door. But it was sometimes possible to "shade" important information into one's work without laying oneself open to that charge of weakening.

The surviving windows looking on to Hitler's Europe and seeming to hold most interest may be Stockholm, Zürich, Lisbon and Istanbul, in each of which there remains a sprinkling of British and U.S. representation. The value of Madrid as "window" would be less apparent but for an interesting watch kept on Vichy France. That a capital may be censored in the best totalitarian style does not necessarily mean that it loses its value as a "window." News can be borne away verbally by the rare travellers still moving out of Hitler's Europe: there are other means of communication.

Concerning neutral Dublin as a "window," Mr. de Valera, who controls the Press with an iron hand, could arrange for Eireann newspaper men in the several countries of Hitler's Europe where he keeps diplomatic representatives. I've never seen anything to suggest that he has done so. As for the intelligence he collects through his Continental diplomats, this is no doubt locked away in strictest neutrality. One fears that the Dublin "window" has served mainly for Axis eyes looking on the United Kingdom.

An aspect of this peering into Hitler's Europe which needs to be kept in mind concerns the misleading information that Axis experts at the game manage to disseminate in each of the "windows" I have mentioned. Intricate machinery is constantly at work to put us off the track, to lead us pretty dances, to spread optimism and, alternately, pessimism. The Germans have become past-masters at this business, and their tricks and decoys are not to be scoffed at. Information showing things to be going badly for the Axis in this or that sphere has to be taken with much salt.

Up and down his largely closed Continent, Hitler is further helped by the high degree of secrecy his regime is able to impose. In this matter totalitarians at war win hands down over democracies. No people have been rendered more innocuous from the standpoint of giving away information than have the Germans under the Nazi dispensation, and much of the same clamp-down operates among all the satellite and captive populations. Not only are these prevented from discussing (save in whispers); they are as far as possible kept from *seeing*. Elaborate precautions are taken at times of crucial import. For example, take the present conundrum: Is Hitler reinforcing his Russian front or is he withdrawing troops for use elsewhere? So that the fewest possible number shall be eye-witnesses of rail and road traffic, of billeting and other signs of movement, big stretches of countryside are subjected to rigorous control. No one may move beyond a prescribed area, and in some cases whole populations must remain indoors behind shuttered windows.

It is, of course, not possible to write about underground sources of information, of Pimpernel connections with a Europe widely aching to help. The Czechs in London have more than once said they are in almost daily communication with Prague. The telling advent of the Russians will have extended and improved subterranean channels throughout the Continent. What amount of information may come coded from submerged "freedom stations" and what chances there are of maintaining contact with the Continent by means of parachute and boat landings, belong to a chapter of the future. We know that Hitler has tried the same here, with his spies from dinghies carrying transmitting sets and iron rations.

We need every dependable informant abroad that we can get. For the Nazis, on this side, have evolved a ceaseless watching-and-checking system the like of which has never been approached. Every Nazi in every corner or acre of Europe is part of this organisation which, as it affects countries outside Great Germany, comes under Bohle, head of Germans in Foreign Lands. Bohle is the ex-Bradfordian of whom we might hear a great deal did invasion ever succeed.

The loss of American eyes round Europe prompts one to examine the reverse of the medal. Are we doing all we can to keep what goes on here from getting through to Hitler? How about attempting a bit more of a closed Britain to face Hitler's closed Continent? Is this really the tight little isle it should be at this juncture, when we have every bit as formidable secrets to keep as any Hitler, every bit as much cause to practise the highest discretion?—which does not mean putting up Careless Talk posters and lecturing and leaving it go at that. Have our rulers ever developed the true "behind the lines" questing after security, for we are just as much behind the lines as were we in Artois?

We have just been lucky in getting rid of the Japs, but what mustn't these little spy-devils have picked up in our midst for forwarding to the Axis? We know perfectly well there are others continuing to do the same thing, and I say that a selection of them, representing minor lands, should be bereft of their immunities for the duration. The damage done thereby to British trade would be small indeed . . . and, anyway, are we or are we not in this to preserve this country?

Again, I trust the British Council will be very circumspect regarding whom it invites to inspect the United Kingdom at war. And this goes, too, for other bodies that issue invitations. Recently some American Isolationists were shown round. They may not have been shown secrets outright, but could not have failed to absorb information which never should have been allowed to leave this country in the keeping of men who were bound to back the Isolationist-Lindbergh circles. This may be a closed page now, but it was a stupid risk to have taken. And in the same street was the concurrent promenading here of a foreign military mission which returned, indubitably highly interested, to one of our "windows" (above). At the same moment, a military mission from the same country was visiting Berlin. Of just what value to us at this stage are these foreign military arrivals from insignificant lands, considering the risk involved?

Finally, Hitler is not handicapped by the secrets that slip out in a democratic parliament and Press and radio. Slip out? Latterly there was printed a detailed account of how we had changed the system of Britain's defence on land. And now we are promised a parliamentary exposition of airfield defence changes. Why—seeing that everything gets round to Hitler in an hour or a few days? What a remarkable picture the Nazi Intelligence must be able to keep up, marked "Inside Britain"!

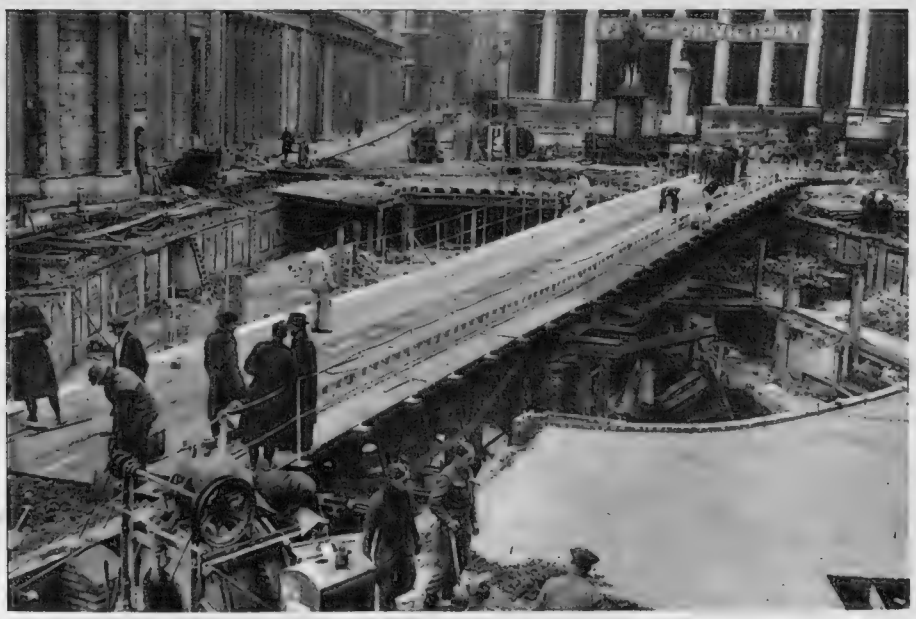
WHEN THE BANK WAS BOMBED

THE GREAT HOLE OUTSIDE THE BANK AND ROYAL EXCHANGE, after a heavy German bomb had fallen at this busy spot

THE MASS OF CONCRETE ROADWAY which caved in on to the Underground subway beneath, after the explosion at the Bank

THE JUMBLE OF CONCRETE AND STEEL GIRDERS AND SHEET IRON which had to be cleared away from the crater

Above and on left—THE BRIDGE CONSTRUCTED OVER THE BIG CRATER AT THE BANK BY THE ROYAL ENGINEERS : It had a 10-ft. roadway with a white kerb ; on each side was a footway 2 ft. wide. The surface of the " road " was of wood, but the whole structure beneath was of massive steel girders in two unequal spans, supported by a pier of steel girders rising from the crater



Just over a year ago—on the night of Saturday, January 11, 1941—a German bomb was dropped by a raider some hours before midnight. It crashed on the open space outside the Bank, in the City's heart, and penetrated the road surface. The Bank subway caved in, the Underground station booking-hall was wrecked, and a number of people were killed and others trapped. Later, Royal Engineers threw a temporary bridge across the crater, and afterwards the road surface was reconstructed. Pictures of the damage at this spot, and of the huge crater which was formed, together with pictures of the subsequent reconstruction work, have only just been released by the Censor

STRIKING at the ENEMY'S AIR-POWER

—HOW AN AERODROME IS ATTACKED FROM THE AIR

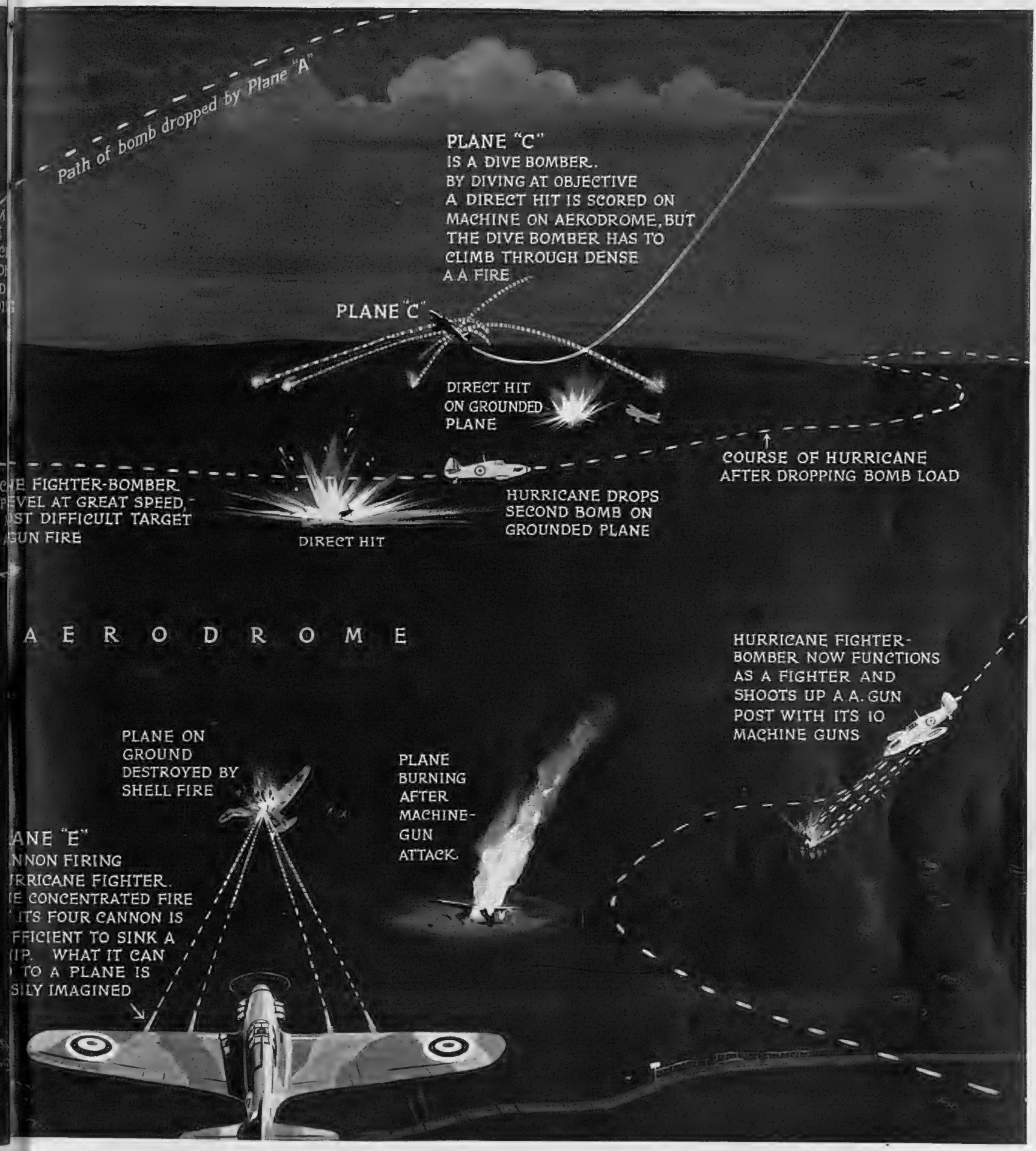
A Complete Exposition of the Different Methods Pursued in the Destruction of Air Base *and* Aircraft, as Exemplified in Warfare of To-day in All Theatres of War

—Drawing made specially for The Sphere *by Roland Davies*

WHEN the Japanese bombers attacked the American airfields at Hawaii, our allies lost many planes in a few hours. Likewise, when our own R.A.F. raided a Japanese-held aerodrome in north-eastern Malaya they caused the destruction of aerodrome buildings, hangars, petrol dumps and at least ten aeroplanes on the ground.

In Cyrenaica, too, R.A.F. attacks on Axis aerodromes have been a major factor in our retention of air superiority in this theatre of war. Amongst air bases attacked in North Africa were those of Castel Benito, Sidi Megrum, El Agheila, Ara Philænorum, Nofilia and Jedabya. On each occasion hits were observed on at least one aircraft on the ground.

When the Germans invaded Poland their first move was to smash the Polish aerodromes: not until this was accomplished by overwhelming air strength did the German dive-bombers begin their devastating and brutal assaults on the towns and villages. It has always been the German plan first to smash their opponent's Air Force, and they have proved that the best way to render them ineffective has



been to smash the aerodromes and (where possible) the aircraft of their enemies *when on the ground*. Only the almost superhuman efforts of our then small R.A.F. saved our own British aerodromes from destruction during the Battle of Britain. Had our aerodromes succumbed, the invasion of this island would have been a grim probability.

Broadly speaking, well-planned raids on aerodromes have as their objectives two principal achievements, both of which may be fulfilled in a single raid. First, there is the destruction of the aerodrome as a base; second, the destruction of the aeroplanes based on the aerodrome.

In the first case, bombs can be rained down on vital buildings and on runways, thus interrupting the efficiency of the aerodrome to varying degrees, even to causing its complete abandonment. In the second case, where the destruction of the enemy's aircraft is the prime consideration, bombs cannot always be as effective as gunfire. Where an aerodrome lies within the range of enemy raiders, obviously all the aircraft are not packed away neatly in a few large hangars where large, well-directed bombs could destroy the lot in one *coup*. Wherever possible the aeroplanes are dispersed around the fringe of the airfield, generally so far apart that not more than one machine could be destroyed by any one bomb. It does seem that, in these circumstances, machine-gun or cannon-gun attacks would prove more effective than bombing.

When the R.A.F. attacked the mine-laying seaplane base at Borkum early in the war they used long-distance fighters for the raid. Diving low over the slipways, our Blenheims sprayed the seaplanes with machine-gun fire. Since then many raids on enemy aerodromes have been carried out by our Fighter Command.

When one realises that ships have been sunk, trains brought to a standstill, and factories fired by our new shell-gun fighters, it becomes plain that they must be pretty well ideal for attacks on enemy aerodromes.

Then there are, of course, our new Hurricane fighter-bombers. Flying at great speed, and so low that their approach is unnoticed until it is too late, they can "lay" their bombs on enemy planes on the ground and be away before the ground defences can even begin to operate.

It would appear that the Japanese are following closely the tactics of the Germans in employing dive-bombers for aerodrome attacks. In this way more accurate bombing is made possible. But the dive-bomber, pure and simple, does not measure up to our own Hurricane fighter-bomber, as it has to dive down from a good height and then has to run the gauntlet of intense anti-aircraft fire, both on the way down and on the subsequent climb up—to say nothing of its vulnerability to attack by fighters. The Hurricane bomber avoids the latter—because the moment its bombs are dropped it at once regains full speed and manœuvrability as a fighter.

A study of the drawing by Mr. Roland Davies *above* demonstrates all the known methods of attacking an aerodrome and the machines on it from the air. A number of different methods are illustrated; and if the course of each attack is followed a clear picture will be gained by the reader of what takes place during different types of raids.

HOW BOMBING LOSSES ARE INCURRED BY BOTH SIDES

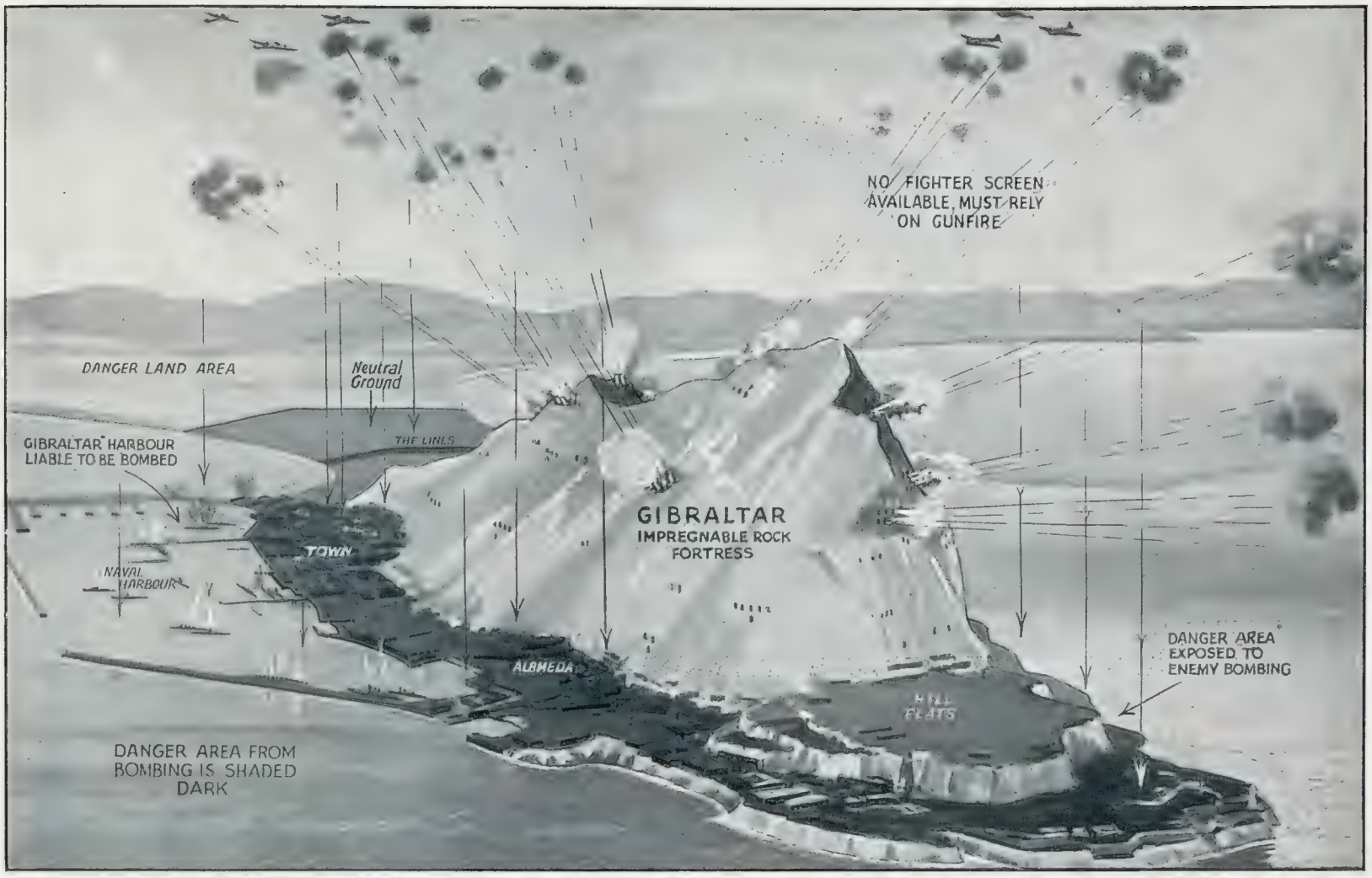
THE RECENT SMALL-SCALE RAIDS ON BRITAIN, and how they are warded off

Two principal things have become apparent during the past twelve months in connection with the War in the Air: the almost complete absence of German daylight raids and the remarkable diminution in German night raids; and the growing increase in our own offensive against the enemy by day and by night. Bomber Command, reinforced by new types and by considerable increases in aircraft, has been hitting the enemy, both within his own borders and in occupied lands, harder and harder. Together with Fighter Command sweeps in daylight, we have now carried the war far into his territories. The two drawings by Mr. Davies reproduced above give a diagrammatic exposition of both defence and attack as they have evolved during the past few months. On the left we show what we might term the Enemy's View of Britain: the would-be enemy raider to-day has to take his chance of meeting British long-range fighters on patrol over his own territory, or of withstanding attacks on his own aerodrome as he takes off or lands. When he reaches the shores of Britain, strong coastal barrages and British fighters are waiting to welcome him: farther inland, should he attempt to penetrate thus

HOW BRITISH BOMBERS ARE LOST on the journey to and from Germany

—Drawings by Roland Davies

far, even stronger barrages and more night fighters are waiting. And all these defences are coupled up with our ever-improving radiolocation services. The British bomber has an even greater number of difficulties to surmount—principally because of the greater distances involved and the length of time which must necessarily be spent over enemy territory—to say nothing of the greater number of sorties the British pilot is called upon to undertake. No sooner does the bomber cross the coast of the Continent than he becomes liable to attack by the German fighters: at once he is picked up by the enemy's radiolocation services and thereafter his course is closely followed. Throughout his journey he is subject to intermittent anti-aircraft fire, which reaches to a great intensity over his target—usually a big German city; and to an intense searchlight barrage, which now extends for many miles in front of his target. Attack by enemy fighters is always to be expected; sudden changes of weather, too, are frequently encountered. And once his target has been reached and the bomb-load dropped, the whole process has to be gone through once again—in reverse!



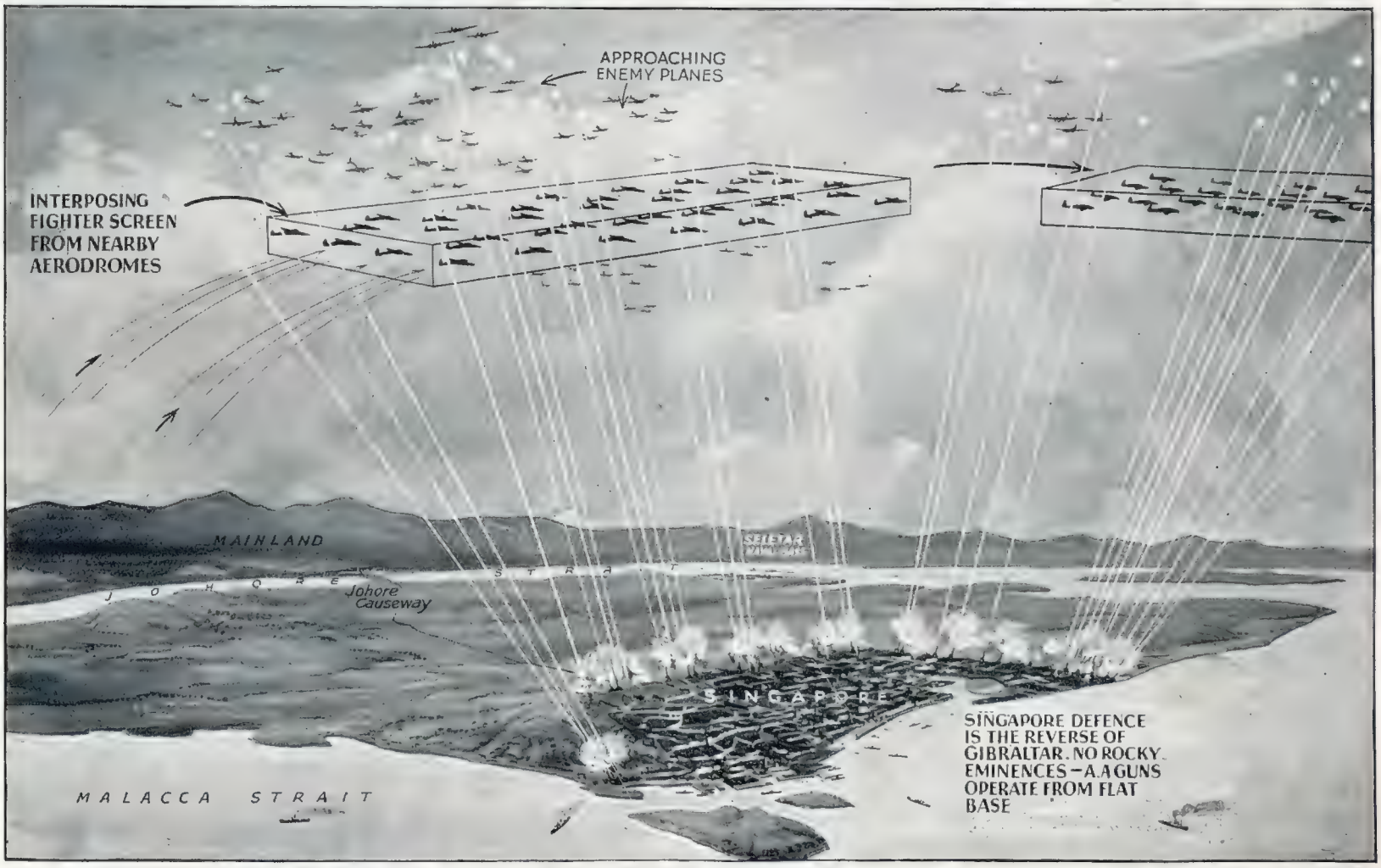
GIBRALTAR IS PROBABLY A REALLY IMPREGNABLE FORTRESS, but the problem of guarding the Town and Harbour and Dock is another matter! The more vulnerable portions are shown dark in contradistinction to the lighter-toned Fortress itself

IS THE "IMPREGNABLE" BASE REALLY IMPREGNABLE?

A Very Vital Problem of To-day Exemplified by a Comparison Between the Positions at Gibraltar and Singapore

—Two drawings by E. G. Lambert, made specially for The Sphere

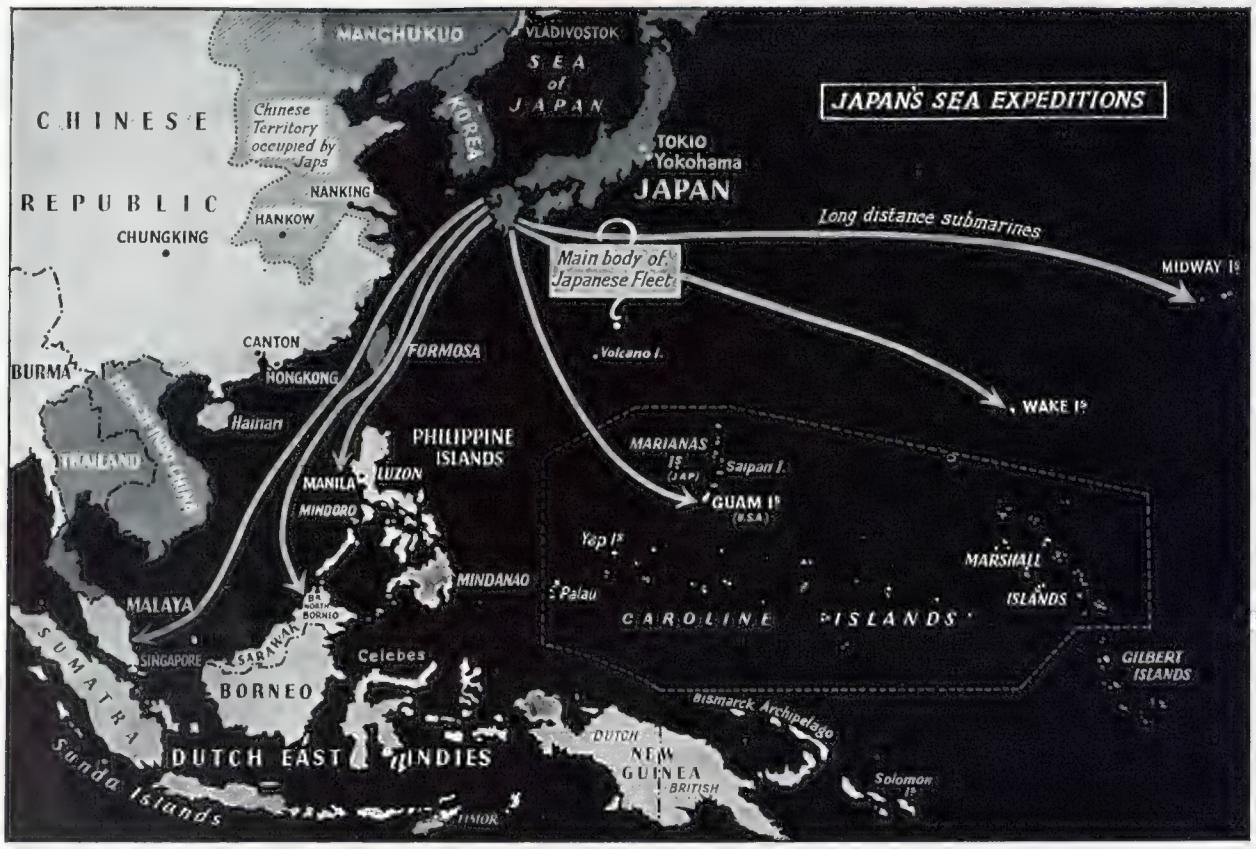
Air power has during the two and a half years of war given a new meaning to the word "Impregnability." Recent events—in connection with the Belgian fortresses (conquered from the air by parachute troops), with the island of Crete (conquered by air-borne troops and tanks), with the advances in Malaya and the capture of its aerodromes—have demonstrated that few strongholds are to-day really impregnable in the absence of fighter aircraft. By means of the latter, the bombers and dive-bombers and troop-carriers of the enemy can be held at a distance; without them, air-borne troops and parachutists can descend in such overwhelming numbers on any given point that, no matter how strong its defences, it can be overwhelmed in the long run—always provided that the attacker does not mind sacrificing thousands of his best troops in the assault. Gibraltar stands in a unique position, of course—for, even if the flat lands surrounding the Rock itself, and its Town and Harbour, were to fall by assault, the main towering *massif* itself could still go on resisting, causing casualties almost too heavy to be borne by the enemy. But the ideal "fortress" is that which combines the features of Gibraltar with a place like, say, Singapore. Here the general flatness of the landscape permits of the construction of several aerodromes: from these fighter "umbrellas" could be maintained, with which to beat off all attempts at landings by the enemy, as well as preventing damaging raids by bombers. Were it possible to combine the features of both Gibraltar and Singapore then, indeed, would such a spot be impregnable. In the absence of this, a number of aerodromes and a sufficiency of aircraft seems the best method!



THE "IMPREGNABLE" FORTRESS OF SINGAPORE OFFERS A DECIDED CONTRAST TO THAT OF GIBRALTAR. Here there is no towering rock giving natural defence to the site: it is flat, and all defences against air attack have to be arranged from the level. The flatness, however, gives the defence room for *several* fighter aerodromes, if necessary. The "umbrella" screen of a fighter force would appear to be as necessary here as over a battleship

The WAR in MALAYA

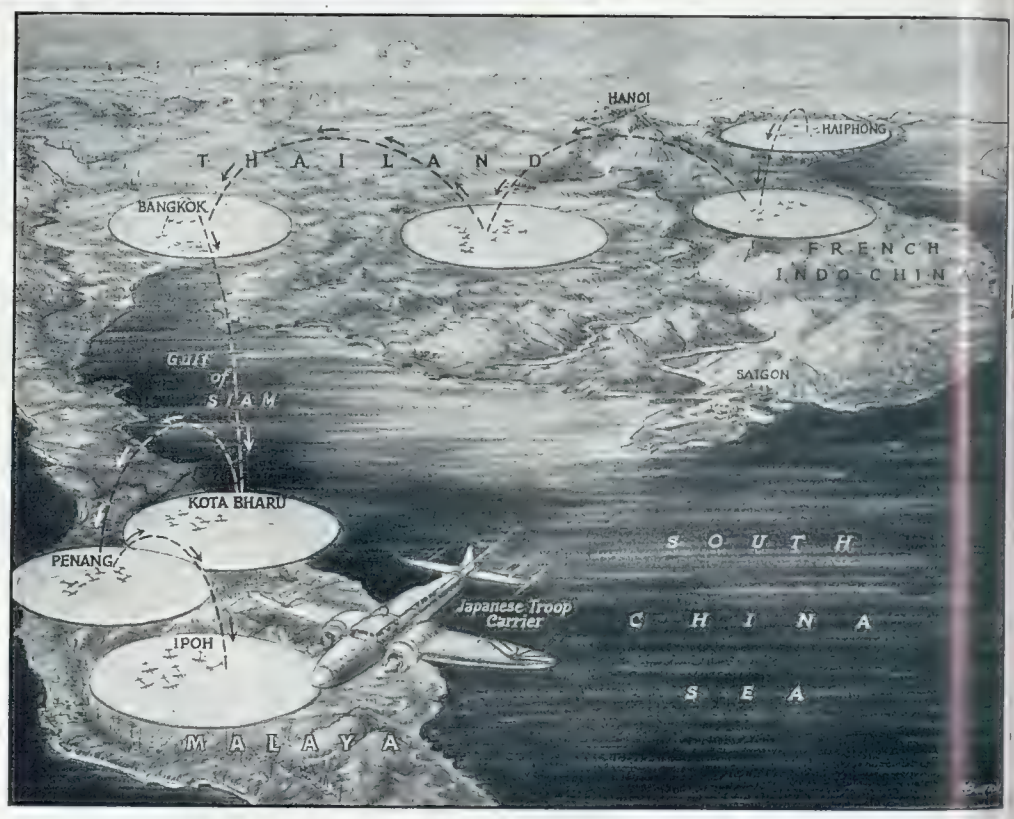
Some Special "Sphere" Drawings and Maps



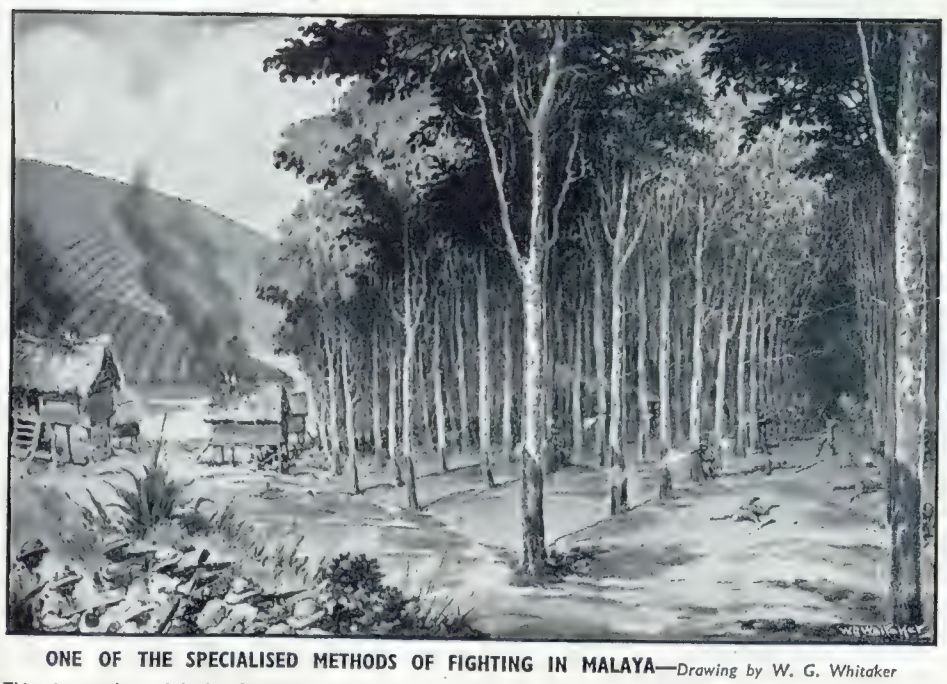
HOW THE JAPANESE FLEET HAS BEEN DISPERSED THROUGH THE PACIFIC in six main directions, from Midway Isle to Malaya

On left—In the few weeks which have elapsed since Japan's entry into the war, it has become obvious that her naval forces in the Pacific have become split into six main bodies. The landings at Midway and Wake Islands were covered by naval units, as was that at Guam—all three being widely separated by hundreds of miles. The attacks on the Philippines and Malaya have been backed up with very strong forces, as, indeed, was demanded by the number of vulnerable transport vessels employed: now comes the further extension of the Japanese naval effort in the attack on British North Borneo. For the moment the initiative undoubtedly rests with the Japanese

DEFENCE AGAINST THE MALAYAN MOSQUITO: To counteract that ferocious sniper, the mosquito, this special hat has been issued to Australian soldiers in Malaya. The net is specially attached in the manner shown; and gloves are added to make the protection more complete. With the mosquito's bite comes disease; and it is this which the authorities try to avoid



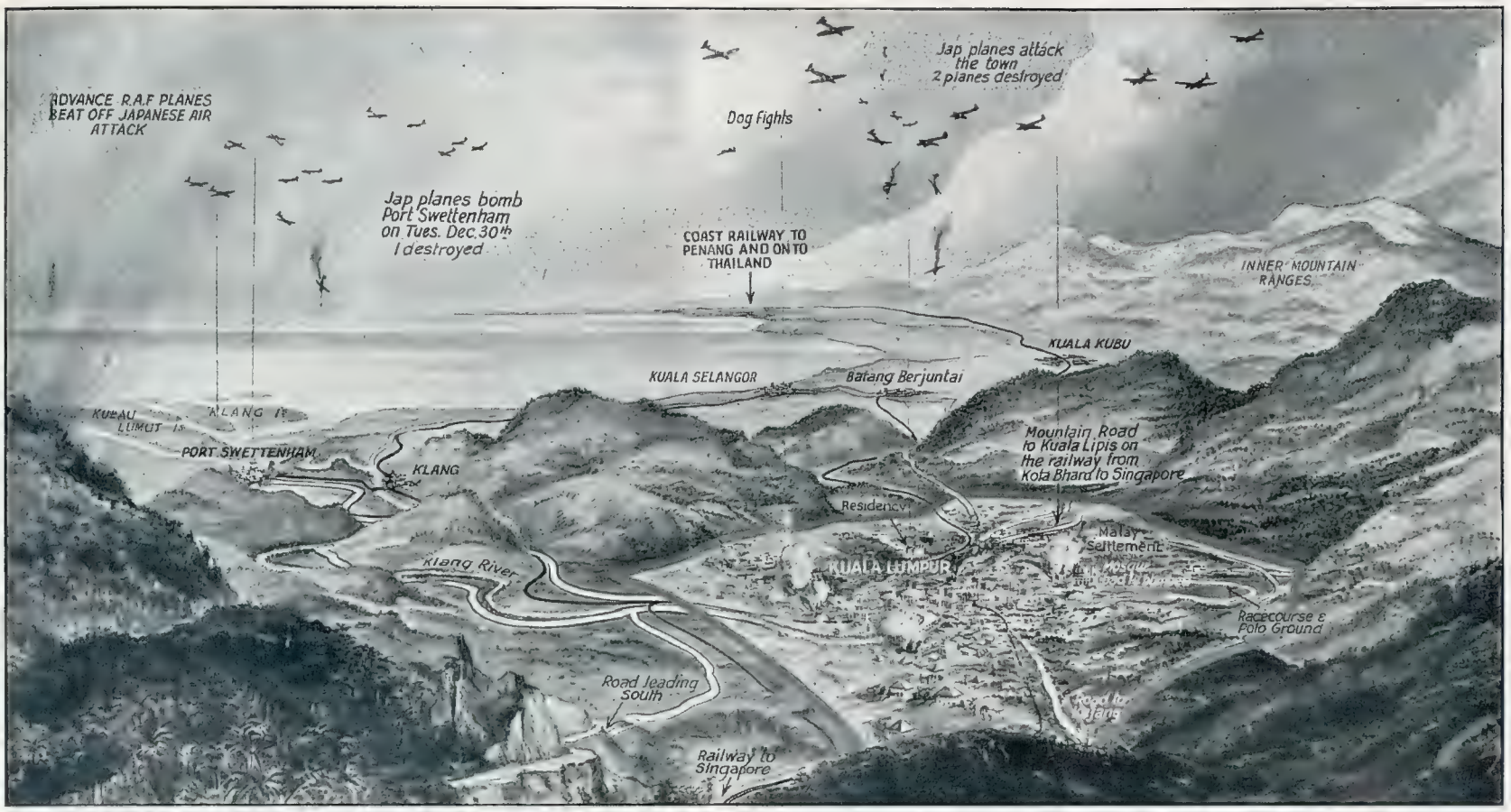
THE USE OF "STEPPING-STONE" AERODROMES BY THE JAPANESE for the conveyance of troops and stores to advanced positions in Malaya: "The rapid advance of the Japanese through difficult country was made possible by the skilful use of aircraft," writes one expert. "Our airfields were seized not only for fighter bases but as stepping-stones for transport aeroplanes. Wherever they command air superiority the Japs employ large, slow transports and troop-carriers. This, more than any other single factor, has enabled the quick infiltration of small tommy-gun parties."



ONE OF THE SPECIALISED METHODS OF FIGHTING IN MALAYA—*Drawing by W. G. Whitaker*

This picture shows a body of Japanese troops advancing through the long, regular avenues of rubber trees which give the present fighting in Malaya a peculiar quality. The dense cover makes the alleyways gloomy; and bodies of troops can lurk unseen until they are almost upon the opposing forces. For the sniper the rubber groves offer excellent opportunities for the exercise of his deadly skill

A DISCUSSION OF THE PACIFIC SITUATION: Jonkheer A. W. L. Tjarda van Starkenborgh Stachower is the Governor-General of the Netherlands East Indies. He is here seen with Mr. Duff Cooper, British Resident Minister in Singapore, in Java, where the two met for a discussion recently on matters connected with the defence of the vital East Indies



HOW THE JAPANESE ADVANCED DOWN THE WESTERN COAST OF THE MALAYAN PENINSULA towards the key point of Kuala Lumpur—*Drawing by E. G. Lambert*

Kuala Lumpur is a key point of communications in Central Malaya, about 200 miles to the north-west of Singapore. The approach to it was made down the west coast to the port of Kuala Selangor, and was followed up by further Japanese landings on the Malayan coast in the vicinity. The threat to Kuala Lumpur immediately became very real. Aircraft began to raid the town, but the presence there of advanced fighter planes of the R.A.F. limited the enemy's bombing operations at both Kuala Lumpur and Port Swettenham. Mr. Lambert's drawing above shows the location of the town amongst the Malayan hills, and its rail, river and road connections with other regions. Various parts of the town were hit in the first raids, but the Japanese bombers were heavily engaged by the R.A.F. Later the situation became more menacing as more and more attacks were launched, by land, sea and air

The DUTCH NAVY WAS READY

A Note by Francis McMurtrie

THERE is no doubt that the Government of the Netherland Indies realised the danger from Japanese attack earlier than other authorities who were equally threatened.

All naval, military and air forces had been fully mobilised during November, and active measures against the aggressors were started at once. Fortunately the naval force in the Indies, based on Surabaya, is a fairly strong one, including the cream of the Royal Netherland Navy. There are four cruisers—the *De Ruyter*, of 6,450 tons, launched in 1935; the *Java* and *Sumatra*, of 6,670 tons, launched in 1920-21 and modernised in 1935; and the *Tromp*, of 3,350 tons, launched in 1937. All four mount 5·9-in. guns as their main armament.

Seven destroyers of 1,300 tons, designed by Messrs. Yarrow and Co., Ltd., and dating from 1926-30, and fifteen submarines launched between 1922 and 1939, are also comprised in the Indies Squadron. There is also the training ship *Soerabaja*, of 5,644 tons, mounting two 11-in. guns, which should be quite useful for coast defence purposes.

Smaller craft include two sloops of 1,457 tons, five minelayers, and a considerable flotilla of motor-torpedo-boats. There are also between twenty and thirty vessels belonging to the Indies Government, which form a valuable reinforcement to the Navy for patrol duties, etc., in time of war.

Naval and air reinforcements were despatched to Singapore in the first days of the war, eliciting a message of cordial appreciation from the Straits Settlements Government. Other naval units had been detached some time earlier for operation with the Royal Australian Navy.

On December 14 enemy aircraft ineffectively bombed the Anamba Islands; and two days later a patrol vessel was attacked by a large Japanese bomber without sustaining any damage. On the other hand, a Dutch naval aircraft scored a direct hit on an enemy destroyer off Miri, Sarawak.

Later it became known that on the night of December 13 a Dutch submarine observed four enemy transports in Patani Bay, in the Gulf of Siam. Though the water was only 2½ fathoms deep, so that the submarine could not dive, she fired six torpedoes while on the surface, and sank all four transports. She then made for the open sea, but had the misfortune to run into an enemy mine which destroyed her, only one rating succeeding in reaching the shore.

Repeated air attacks were made on the Japanese forces invading Sarawak. In addition to transports, a destroyer was sunk and other warships damaged. A Japanese cruiser sighted to the north of Celebes was set on fire by bombs dropped from an Australian aircraft stationed at a Dutch aerodrome.

In the meantime the Japanese had attacked the aerodrome at Medan, Sumatra, causing a number of casualties and burning a commercial aeroplane. Two Japanese fighters were shot down on December 27, the locality not being reported.

On January 2 it was officially announced in Batavia that American warships and aircraft were co-operating with Dutch forces in the defence of the East Indies.

Belawan Deli, on the east coast of Sumatra, was bombed and machine-gunned by three Japanese aircraft on January 1, though there are no military objectives there. At Babo, in Dutch New Guinea, a similar attack had no result beyond killing three non-combatants, two of them children, and injuring others. Other raids were made on places in Dutch Borneo.

Too high praise cannot be given to the energetic co-operation which the Dutch forces are affording in the Far East. The daring exploits of their naval air pilots and submarine captains have been the brightest features in the stern struggle which is proceeding in the eastern seas.

THE SUBMARINES OF THE ROYAL NETHERLANDS NAVY ATTACKING JAPANESE TRANSPORTS OFF SIAM—*Drawing by Wm. McDowell*

Ready on the outbreak of hostilities as they were, the units of the Dutch Navy in the East Indies—and especially the submarines—have performed great feats against the Japanese transports and warships operating in Malayan and Siamese waters. The drawing by Mr. McDowell above depicts the very successful engagement which took place recently off Patani in Southern Siam: a fleet of Japanese transports were steaming south, fully loaded, off the extreme south-eastern corner of Siam, where the Japanese made their first landings at the start of the war. The Dutch submarines immediately attacked and four transports were sunk. In the foreground of the picture one of the submarines is seen surfacing to watch the effect of its torpedoes; at the right the periscope of another submarine is seen. The Royal Netherlands Navy in the Pacific is operating under the orders of the British Naval Commander-in-Chief

THE MONSOON SEASON AND THE ROYAL NAVY

What the Monsoon Means, and When It Comes, in Malaya and Burma

THE dry, and therefore the best, season in British Malaya is from April to September. Then the temperature is from 70 to 90 deg. Fah. in the shade, and this is about the same all the year round. The rainfall varies according to the particular area, and is from 68 to 167 ins.; the average is about 90 ins. The rain is evenly distributed throughout the year; and it usually comes in the afternoons. The mornings are generally light and sunny, after the early mists have disappeared under the sun's rays. Early mornings, and just before the rain falls in the early afternoon, the sky is mostly grey and cloudy during the monsoon periods. Nearly always there are masses of low-flying, fleecy scarves of clouds until the sun is well up. The rainfall is heavier, the temperature cooler, and the winds more gusty from about October to February; but sometimes the north-east monsoon conditions endure from September to January only.

It is the south-west monsoon which is of great importance, and its breaking is anxiously awaited by the planters and agriculturists, also the commercial firms, as its success means much to business. This applies generally from India, Burma, Thailand and Malaya, to the Dutch East Indies, French Indo-China, Borneo, etc. The south-west monsoon period (May-June to September-October) is preceded by the hot weather (February-March to May-June). The north-east monsoon is regarded in those regions as unimportant, and without serious significance.

During the north-east monsoon period of the year the South China Sea and the Gulf of Siam (more particularly the southern portion) are liable to experience gales and rough seas, but this is not a common occurrence. Indeed, these seas are often smooth or experience just a swell. Rare cyclonic storms cannot be ruled out of the picture, but they are exceptional, and therefore noteworthy when they do occur. During December, January and February, the north-east monsoon blows gustily on some days in the South China Sea, and to a far less degree in the more protected Gulf of Siam. The waters washing the eastern coasts of the Malay Peninsula, Southern Thailand, Central Thailand (as far north as Paknam on the north-west corner of the Gulf of Siam and at the estuary of the Menam Chow Phya [Menam] River), are sometimes liable to be affected adversely by the monsoon conditions.

The monsoon season in the Gulf of Siam and the South China Sea

For instance, Pekan, the port of the State of Pahang on the east coast of British Malaya, is a place of call for steamers from Singapore, Saigon and Bangkok. During the prevalence of the north-east monsoon, however, their visits there are irregular, owing to bad weather conditions, for a heavy sea gets up on the bar of the estuary of the Pahang River, making navigation both difficult and hazardous. Khota Bharu, Kuala Trengganu and Kuantan are not so seriously hampered by bad weather due to the monsoon.

Bangkok (situated 25 miles up the Menam Chow Phya River from Paknam at the estuary) is not affected by the monsoon, and vessels ascend the Menam to Bangkok all

Drawing by Montague Dawson

MONSOON WEATHER IN SINGAPORE WATERS FOR THE ROYAL NAVY: A junk in a suspicious locality is hailed by a British destroyer as she looms up out of the rain. Visibility at these times of the monsoon is often reduced to only a few yards as the rain squalls beat down

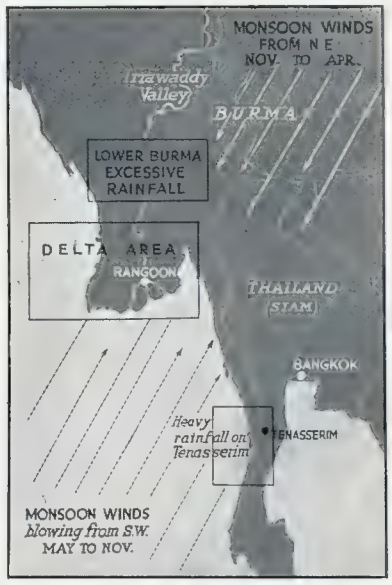
the year round. There is also a good seaplane base at Samud Sakorn, 12 miles from Bangkok. Singora, on the shores of the inland sea of the same name, is also an open port all the year round.

The effects of the monsoon weather are felt more to the southwards—the eastern shores of the Malay Peninsula, the Dutch East Indies, French Indo-China bordering on the South China Sea, Borneo, etc. Occasionally during this period, but rather exceptionally, steamship services in these waters do experience violent storms of wind, torrential rain and rough seas; but normally the conditions are either calm or strong breezes, medium to heavy swell, and heavy rain squalls.

Northwards, in the Gulf of Siam, the region being land-locked and well protected, the conditions are nothing like so violent at their worst, or so provokingly perverse. The violence, when occurring, increases southwards. The rainfall is frequently torrential during these periods; and this limits visibility and floods the countryside. There are no normal conditions likely to prevent landings along the eastern shores of British Malaya or Southern Thailand, and exceptionally stormy or dangerous weather never endures for any length of time. Changes are always sudden and rapid. There are generally great banks of low-lying, filmy clouds to herald the monsoon's daily deluge; and these are a characteristic of the country from dawn to about nine o'clock, when the warm sunshine has melted the vapours. There is nothing approaching a condition of "true" fog.

Almost every morning this drama of the struggle between the sun and mists (formed by the steam rising from the ground as the early sun draws out the moisture left by rain and dew overnight) can be witnessed in Malaya. On some days in the depth of the wet season, the sun is defeated and is not seen for days, and then the "vapours weep their burden to the ground" all day long, and the mists lazily wind their white wreaths over the countryside.

W. R. F.



The monsoon season off the Burmese coasts

***On left*—RAIN VERSUS VISIBILITY: A modernised British battleship (of the Valiant class) in heavy Atlantic weather, where the squalls of winter often make it difficult to maintain contact**

Drawing by Montague Dawson

It is not only in tropical and sub-tropical waters that the coming of the rainy season brings fresh problems for the Royal Navy, with its storms and fogs and squalls. In the Atlantic—both North and South—the rainy season comes as an added preoccupation for officers and men alike. Rain, especially, is a disturbing factor: in sudden squalls visibility may often be cut down almost to nil in a few minutes. In the drawing of *Valiant* on left, the spectator is looking at the battleship from one of her protective destroyers; in the distance, almost lost in the gloom, is another of her escort

JAPANESE FIELD ARTILLERY OF THE TYPE USED AGAINST HONG KONG—*Drawing by L. Ashwell Wood*

The field guns of the Japanese Army all seem to be on the light side: this is no doubt due to the small stature of the Japanese soldier. Native types of guns are used, but all have the stamp of European influence: where German types are used they are of the heavier siege types. A normal Japanese crew would not be able to handle our 25-pounders, for example, with anything like efficiency. Old-type wooden artillery wheels, instead of pneumatic ones, are conspicuous on Japanese guns, no doubt due to the country's lack of rubber

The EMPEROR'S ARMY

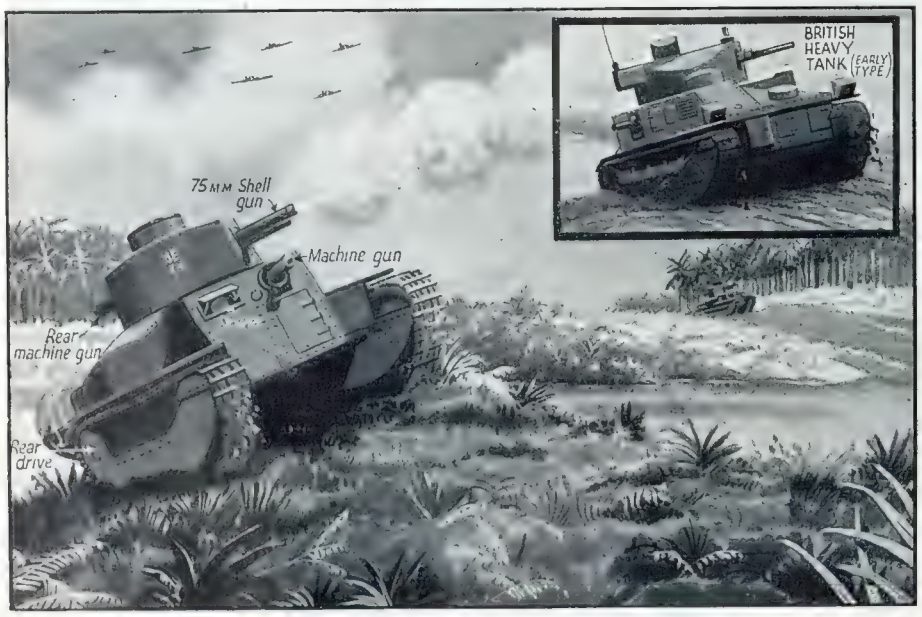
A Study of Japanese Military Probabilities

By PATRICK HAMILTON

WHATEVER we may learn later about Japan's recent diplomatic dealings at Washington—whether they were merely part of a completely cynical bluff to gain time and an advantageous moment at which to strike the first blow, or whether they were in fact genuine efforts to avoid war which Nippon's High Command sabotaged at the moment they showed signs of fruition—it is quite certain that no parallel can be drawn between her action and that of Italy last summer.

Mussolini entered the war because he was confident that the brunt of the battle was over, and all that remained was the victory march and division of the spoils. No such illusions can linger in the minds of any Japanese strategist.

They entered the war at a time when the Axis forces are suffering reverses on several fronts. No one knew better than the Japanese Navy that the Battle of the Atlantic was going against Hitler. No one knew better than the Japanese Air Force that the *Luftwaffe* had lost its previous material and technical superiority. The facts of the German Army's losses in Russia may be hidden from the German people; it is certain they were not hidden from Tokyo.



THE JAPANESE HEAVY TANK IS AN OBVIOUS COPY OF THE BRITISH—*Drawing by L. Ashwell Wood*

This is another example of Japanese plagiarism. The bogie system and cover plates are practically identical with British models, but the top features differ somewhat. A point of special interest is the rearwards firing machine-gun: the 75-mm. shell gun is, no doubt, of German origin. The tall flat-fronted appearance would make a good target, especially as the driver and machine-gunner are immediately behind it. All sorts of gear is carried in a cradle suspended from the back

THE JAPANESE INFANTRYMAN AND HIS EQUIPMENT—*Drawing by L. Ashwell Wood*

Equipment in the Japanese Army varies a good deal according to the locality of the fighting, but the example shown here is a fair representation. There is a standard Japanese rifle, but no doubt they use a good number of German Mausers as well. All N.C.O.s carry an automatic pistol and the famous Samurai sword—a useful weapon at close quarters. Gas-masks are conspicuous by their absence. The infantry machine-gun is the German Spandau, and the heavy variety is the 8 Italian Breda. The following is a key to the equipment: 1—Spherical steel helmet; 2—Great coat; 3—Food container; 4—Ground sheet; 5—Knapsack; 6—Haversack; 7—Water bottle; 8—Automatic pistol; 9—Ammunition pouches; 10—Hand grenades; 11—Samurai sword; 12—Service rifle; 13—Long bayonet

THE FAMOUS TWO-MAN JAPANESE TANK—another copy of a British model—*Drawing by L. Ashwell Wood*

This again shows a remarkable resemblance to our own Mark VI.B. Several features can be identified which prove the strong British influence in design. Both have a forward engine and front sprocket drive: the driver's position on the Japanese model is on the right side, however; and only one machine-gun is carried—very often a German Spandau. Wireless is apparently not carried. A tank of this size would be useful in the jungle, but subject to the same old troubles with its tracks

Japan has undoubtedly responded to a "now or never" call from Berlin, possibly accompanied by a threat to make peace on terms which would leave the democracies free to give Japan their undivided attention. Japan's tortuous diplomacy had brought her to the point at which she had either to fight or to accept the main consequences of defeat without striking a blow!

Military service is compulsory for all males between the ages of twenty and forty. Japan proper has a population of about 40,000,000 males, all of whom are theoretically completely at the disposal of the State. Allowing for the demands of industry and the other fighting services, and for those outside military age, she may be credited with about 1,500,000 soldiers, of which only 350,000 are considered "Geneki," or first-line troops. About a third of these, her best troops, are in Indo-China, and the admission of these to her modern bases and airfields must be considered one of the greatest dis-services France has ever rendered the world. For the job in prospect, the Japanese Army is not over-numerous. She must garrison an Empire stretching from Siberia to the Equator, with her supply routes dangerously near the bases of hostile Powers able to dispute the command of the seas in at least the outlying waters.

Less mystery surrounds the Japanese Army than their Navy. The war in China, which has dragged on since 1937, brought it into action under the eyes of Europeans. Neither their strategy nor their chivalry has been conspicuous. Few countries were less capable of self-defence than China: her most effective allies have been space, time and the courage of her people. Yet the Japanese have required all their material superiority to make headway. Of their behaviour in the regions they have conquered it must be admitted that the Germans have been able to achieve nothing worse.

Admitting that no foreign observer in Japan has seen more than Tokyo has been inclined to permit, it is clear that a strong proviso attaches to all estimates

of men and material. The Chinese incident is a war of attrition, which could hardly be terminated quickly even by the finest troops—there is too much ground to cover. Certain trends in Japanese tactics can be descried, nevertheless.

Intolerant of European guidance, Tokyo began to depart from the German model which had been favoured since 1870 about 1935. The process was accelerated by German double-dealing in the fight with China. Their influence is still clear in the greater responsibility carried by Japanese N.C.O.s. This holds true for all ranks; a Japanese captain is considered a senior officer and discharges duties similar to those of a British major. The rifleman, as such, is going out of favour, since the Japanese soldier has never attained the marksmanship which made our own Army respected out of proportion to its size in 1914. The equipment seen on a Samurai N.C.O. in China consisted of a ·45 automatic and three or four "potato masher" grenades, all slung from a belt worn high up on the chest. The famous sword which is the Samurai caste-mark (they are the pick of the troops) is slung from the same belt. It is a formidable weapon at close quarters, and is no mere ornament.

A preference for getting to grips with the enemy at once and swamping him by weight of numbers has often been shown by Japanese commanders. Gas has been used more than once, followed by tanks, succeeded in turn by lorry-loads of troops hard on their heels. Every effort was very sensibly made to spare their infantry long cross-country advances under even moderate fire. Once inside an enemy village, however, Japanese policy was simply to swamp any local strong point by direct attack. Altered circumstances may compel altered tactics, but we can be sure of meeting the best Tokyo is able to put in the field.

In machine-guns we shall find that Japan is liberally equipped; the German Spandau has been used as the rifle-calibre type, and an Italian model for a heavier gun of about ·5 calibre. Japan has not had much use for anti-tank guns so far, but military attachés reported seeing a palpable copy of the Italian Breda three-pounder in use in the 1940 manœuvres. In field artillery a light weapon is favoured, probably in order to secure a higher rate of fire. Japanese gunners are of too slight a build to handle, say, the modern 25-pounders at quite the same rate as the R.A. Heavier guns follow the German model, making up by numbers what they lack in individual rate of fire.

No great Japanese strategist has yet emerged. Their campaigns have been distinguished by tenacity and bravery more than by unorthodoxy and brilliance. Until they are met by a force of equal strength, however, it must be expected that they will keep up a relentless pressure and some results must follow.

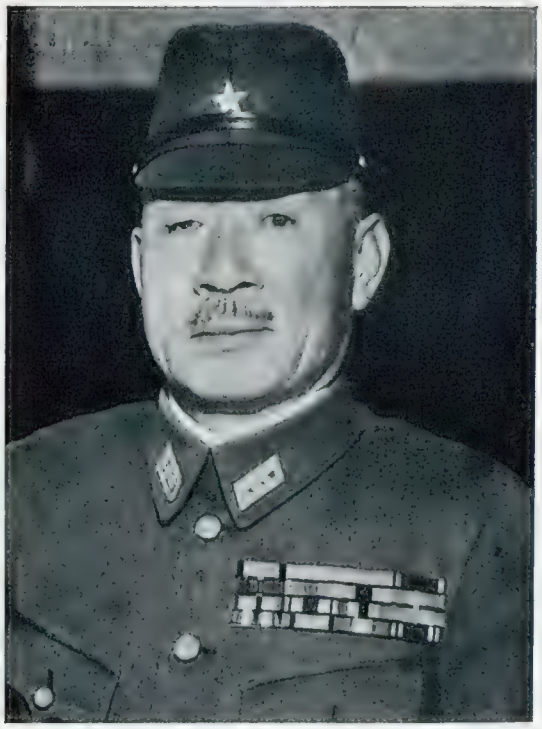
No real attempt has been made even to use the conquered Chinese as slaves in the war machine, after the German model. Thousands of square miles are empty, sterile and typhus-ridden. The Japanese Army has left in its wake simply a moon-landscape of arid desolation.

THE JAPANESE WAR VICE-MINISTER IN FRENCH INDO-CHINA: Lieut.-General Konetika Anami (in centre) inspecting a new Jap air base on French territory, after Vichy had virtually handed over French Indo-China to our present enemies

A JAPANESE LANDING PARTY IN ACTION: Rapid fire from a light machine-gun mounted on a tripod and from Service rifles. Note the sword brandished by the officer!

Lack not only of the factories to make the machines, but also of internal oil supplies to keep them running, once made, has kept the Army less

"CRACK TROOPS" OF THE JAPANESE ARMY PARADING BEFORE THE EMPEROR! A flippant observer might almost comment on the "cracks" which will soon develop in the shoddy boots of these "crack troops." This picture was taken during a dress rehearsal for a Grand Military Review in Tokyo in celebration of the Emperor's Birthday



THE JAPANESE COMMANDER-IN-CHIEF—General Sugiyama, who has control of the Armies in Manchuria, North and South China, Malaya and the Philippines

mechanised than its leaders, nursed in Germany, would wish. Most artillery is horse-drawn, and the Army's heaviest tank was an 8-ton model, built high off the ground and allegedly neither fast, well armed nor well armoured. The automatic rifle is now the standard weapon of Japanese infantry, and great store is set by a number of light mortars and light artillery, all of Japanese design and with reputedly high rate of fire, designed to accompany their troops "over the top." Little attempt was seen in China to avoid heavy casualties. Generals behaved as if their men were mass-produced robots. Losses which in any European army would have been thought criminal were cheerfully accepted in taking some insignificant enemy position. Medical services and the treatment of their own wounded was casual and badly organised, though the Army Medical Corps itself was staffed by men of undoubtedly brilliant training and ability.

Too much store must not be set, however, on Japanese bungling in China. The period of uncertainty during the invasion of Poland, when Germany and Russia seemed arm in arm, led to profound heart-searchings in Tokyo, and the Army machine has had a drastic overhaul both in men and methods.

The possibility that China may yet be able to organise her endless reserves of man-power into something approaching an effective modern army must remain a nightmare for Japan. The prospect is not utterly remote. Three great industrial Powers are now allied to China. The Burma Road has been rebuilt by American civil engineers; American transport operators are there organising the trucking services with American vehicles and American drivers, who have brought to the Burmese jungle the roaring activity of American inter-State highways. American fighter-planes are already being flown in Chiang Kai-Shek's service, and they are 1941 models, better than anything Japan has produced herself. Early in September an American military mission flew hot-foot along the United States' chain of Pacific bases to the Chinese Government's capital, Chungking. At its head was Brig.-General John Magruder, one time military attaché in Peiping and authority both on Japan and China.

Tokyo has entered a race against time. Her early simultaneous attacks over the whole breadth of the Pacific are merely the opening skirmishes in a war of attrition in which the ultimate superiority lies with the democracies. Realising this, it is Japan's objective to reach as early as possible some position of advantage from which she can be ousted only after long and bitter fighting. While her army is attempting this, her navy is seeking to create a second ocean front with the attacks in the Pacific. If both aims are achieved, Japan will offer to make peace on terms, with or without Germany, as may suit her purpose best. Those terms would undoubtedly instal her as ruler of Asia, in which no European Power would again be permitted to intrude.

Japan has an excellent reason for wishing to avoid a long war with such highly-industrialised enemies as the Allies. There is a definite relationship between the industrial potential of a country and the size of the army it can maintain in the field.

Japan and Germany, having long prepared for war, have probably both already reached the position where their fighting forces are the maximum it is possible for their workers to maintain. To make good any further losses of men, it is probable that they will have to deprive industry of essential workers. Such a step will be followed immediately by a drastic decline in the efficiency of their armies.

WASHINGTON, GENERAL HEADQUARTERS for the ALLIED SUPREME COUNCIL

THE HEART OF AMERICA: An aerial view of the GREAT CAPITOL BUILDING IN WASHINGTON, which stands in its own 50-acre park. It was begun in 1793, first used in 1800 and finished in 1811. It is the seat of the Congress of the United States

THE U.S. SUPREME COURT BUILDING: In the background (on the right) is the Congressional Library. These are two of the many fine buildings for which Washington is famous

THE NEW WASHINGTON GROWS APACE: This is a panoramic view from the Washington Monument: it shows the Department of Commerce Building, one of the largest and most impressive; the Labour Department at the right; and the new and old Post Office Buildings; with the business district of the city in the background

THE BRITISH EMBASSY IN WASHINGTON: This is a view of the south end of the new building which houses our diplomatic staff in the American capital. It is taken from the edge of the Embassy's swimming-pool and shows a very pleasing style of architecture

WHERE OUR AMBASSADOR WORKS: The handsomely-furnished study in the new Embassy Building at Washington

In the Allies' plans for "total war" against the Axis Powers (as Mr. Churchill phrased it in Ottawa) the United States capital of Washington is to be the main war-planning centre of all the Allies. Here the War Council will meet and here the representatives of the United States, Russia, the British Dominions and China will co-ordinate plans for all theatres of war.

Washington is not only the capital of the United States of America; it is also the official residence of the President, and the seat of the Federal Government and of Congress. It was selected through the influence of George Washington in 1790; the city stands on the River Potomac in the District of Columbia, with whose boundaries it is co-terminous. The foundation-stone of the Capitol was laid in 1793, and the city was laid out by Major L'Enfant, a French engineer officer. The U.S. Government moved to Washington in the year 1800.

The city to-day has no important industries, but more than ever, since the beginning of the present war, its political significance has grown and grown. To-day, it houses thousands of politicians, diplomats, industrialists and leaders of thought and opinion; hotels are full to capacity, and the come-and-go of statesmen and leaders of industry is never-ending. The city has the ordinary rectangular streets of the New World, but its system of broad avenues, generally tree-lined and 160 ft. wide, is a distinctive feature of this handsome capital.

The two principal buildings are, of course, the Capitol and the White House.

THE PRESIDENT'S OFFICIAL RESIDENCE: The south front of the historic White House at Washington

This delightful official residence in Washington lies at some little distance from the massive domed structure of the Capitol. It lies at the farther end of Pennsylvania Avenue in 75 acres of ground. It is of especial interest as being quite a venerable building, as American architecture goes, for its foundation-stone was laid by Washington himself. The building is therefore naturally in a later manner of the old "Colonial" style. It was first occupied by John Adam as President in 1796, and by all subsequent Presidents. Externally, it is of two storeys, 170 ft. long, with an Ionic portico in the centre. The first-floor level is reached by curving stairways, up to which sweeps a wide open lawn surrounded by trees. The interior contains a large number of rooms, nearly all of which are panelled and painted white, in the classic manner of the late eighteenth century. Furniture of the period and portraits of previous Presidents and their wives hang on the walls

WHERE DISTINGUISHED GUESTS ARE ENTERTAINED BY THE PRESIDENT: The State Dining-Room in the White House, with the table laid for a small private dinner

THE PRESIDENT'S DESK IN THE WHITE HOUSE—an historic place occupied by successive Presidents of the U.S.

Close to the White House are the principal Departmental offices. The Treasury, a massive structure in the classical style, stands at the head of Pennsylvania Avenue; on the other side of the White House grounds is the great building housing the State Department (or Foreign Office), the War Department and the Navy Department. Washington is rich in statues and memorials of the past, the most remarkable being the Washington Monument and the Lincoln Memorial. The former stands in its own grounds on the Potomac River, and an uninterrupted view of it may be obtained from both the White House and the Capitol. It is a plain square obelisk of white Maryland marble 555 ft. high

ONE OF THE SIGHTS OF WASHINGTON: The impressive Lincoln Memorial under the first snows of winter

THIS STUDY IN THE WHITE HOUSE IS USED BY THE PRESIDENT FOR PRIVATE RECEPTIONS. It is an informal room, hung with many portraits and lined with books

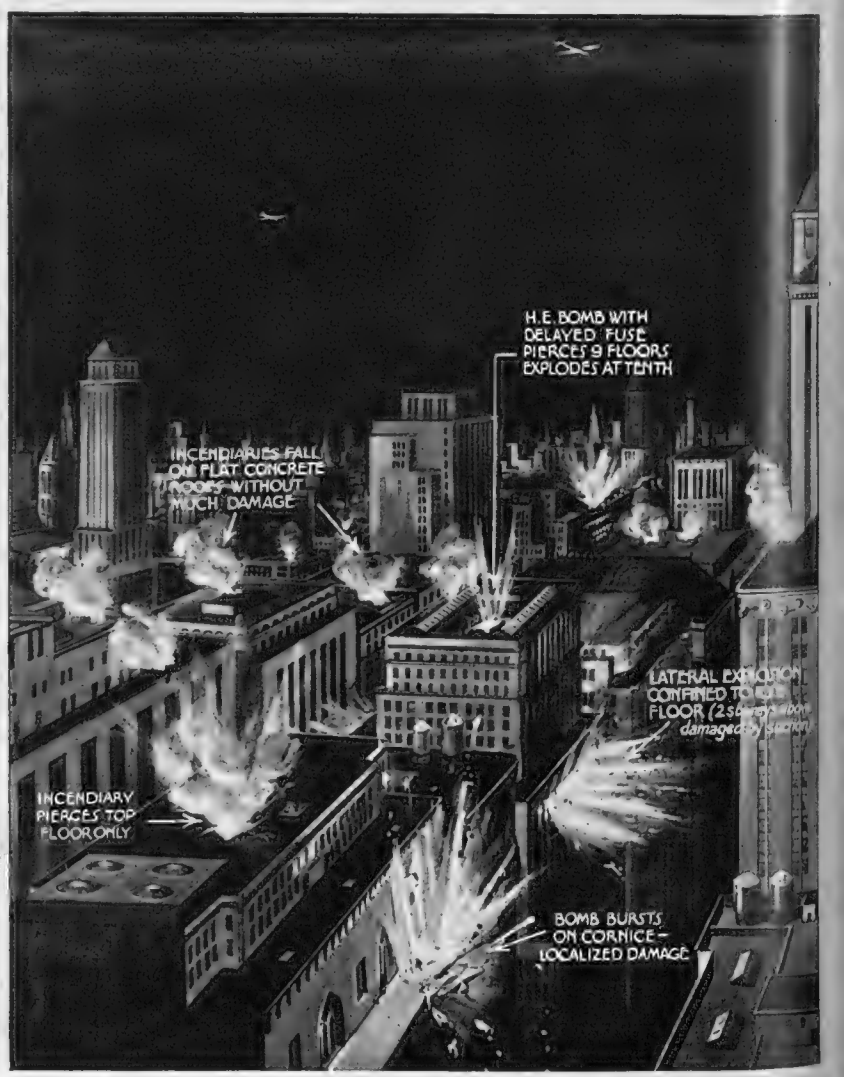
IF THE BOMBERS COME TO NEW YORK . . .

THE TIP OF MANHATTAN, THE SKYSCRAPER SECTION OF THE CITY OF NEW YORK, as seen from the air. Although skyscrapers exist in other parts of the city, it is here that the principal concentration of these breath-taking edifices occurs

WHAT WILL HAPPEN to the GIANT SKYSCRAPERS?

NEW YORK, with its towering buildings, reaching in one case at least to 1,250 ft., is one of the wonder sights of the world. The strip of Manhattan, on which the main clusters of tall buildings stand, presents a wonderful silhouette as the visitor arrives up the East River.

Skyscrapers began to arise in New York about the year 1885; their construction was only possible because of the nature of the ground on which these giant erections are built. The rock formation is granitic: after a site has been purchased, a vast and noisy blasting operation soon takes place. A rectangular hollow is cleared of rock to take some eight floors beneath the road level, and there are probably still further drillings and blastings for the holes in which the giant steel legs of the superstructure are firmly locked to the virgin granite. Some of the engineer-architects at first had the idea of allowing these legs to move up and down in the slots, but this does not appear to have been generally adopted. The great towers have to withstand some heavy storm pressures, but they have stood up to them unflinchingly: tests with water-tanks on the roof have been made from time to time, but only a few buildings have shown any movement. The main uprights are laced together with innumerable cross



A DIAGRAMMATIC EXPOSITION OF THE NEW YORK SKYSCRAPERS UNDER A BOMBING RAID: If these two drawings are studied carefully together with the accompanying article, the reader will receive a comprehensive idea of what the experts think might happen to the City of Lofty Buildings during an attack by air—*Drawings by E. G. Lambert*

THE SPIRES OF NEW YORK EMERGE THROUGH A SMOKE SCREEN: This picture was taken some years ago whilst tests were being made of smoke screens laid by aircraft. It is not unusual, however, for real clouds to cover the whole city, through which these lofty spires reach out to the clear sky above!

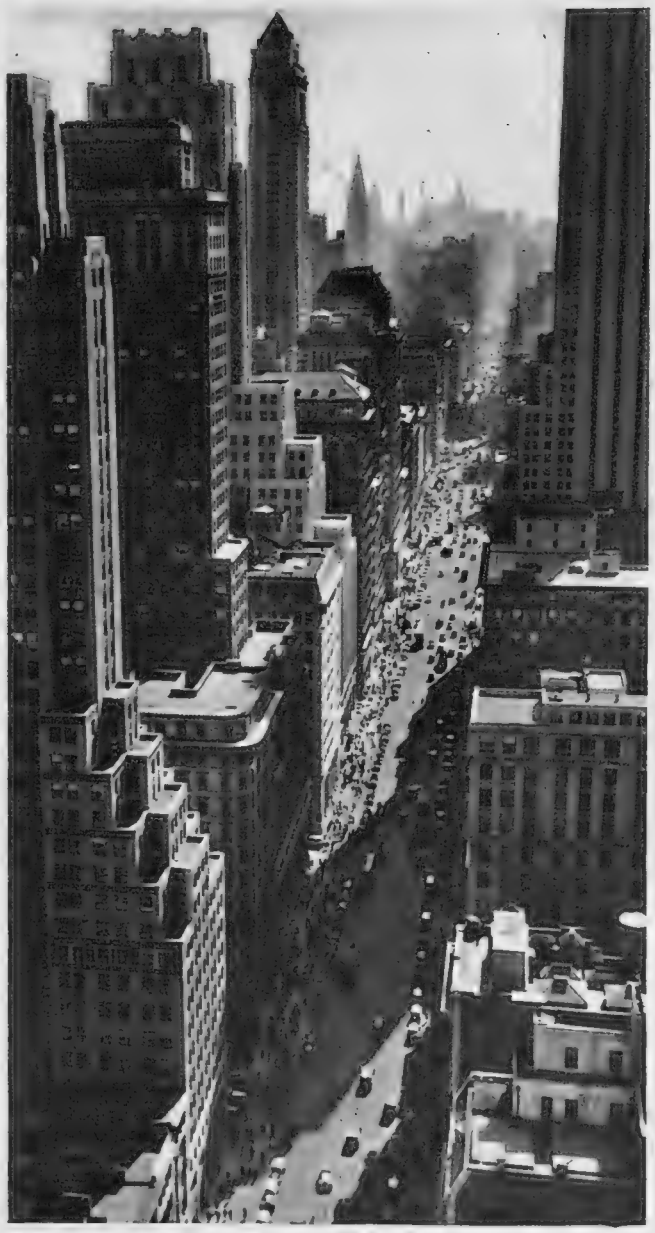
girders and with floors of reinforced concrete which prevent a fire spreading far from its point of origin. The electric lifts enable the transport of workers to take place with sufficient rapidity, but at the same time has presented a financial difficulty, inasmuch as the liftshaft area in very high buildings takes away materially from the letting area. Some little time ago it used to be said that none of these giant buildings really paid their way.

With the coming of war, a totally new problem arises. What is the capacity of the skyscraper to resist a heavy bombing attack? At first sight, these mighty buildings would appear to present wonderful targets for the enemy; a closer examination dispels this view, however. It may be said at once that the theory amongst experts is that these tall buildings of New York would suffer less structurally than the buildings of London, but that superficial damage would be greater. Viewed from above, a multitude of flat roofs, all built of concrete, is presented with yawning chasms between. A bomb might hit square on one of these roofs, or on the roadway below: heavy bombs of 500 to 1,000 lb., set with delay-action for the best part of a second, would probably be the most destructive.

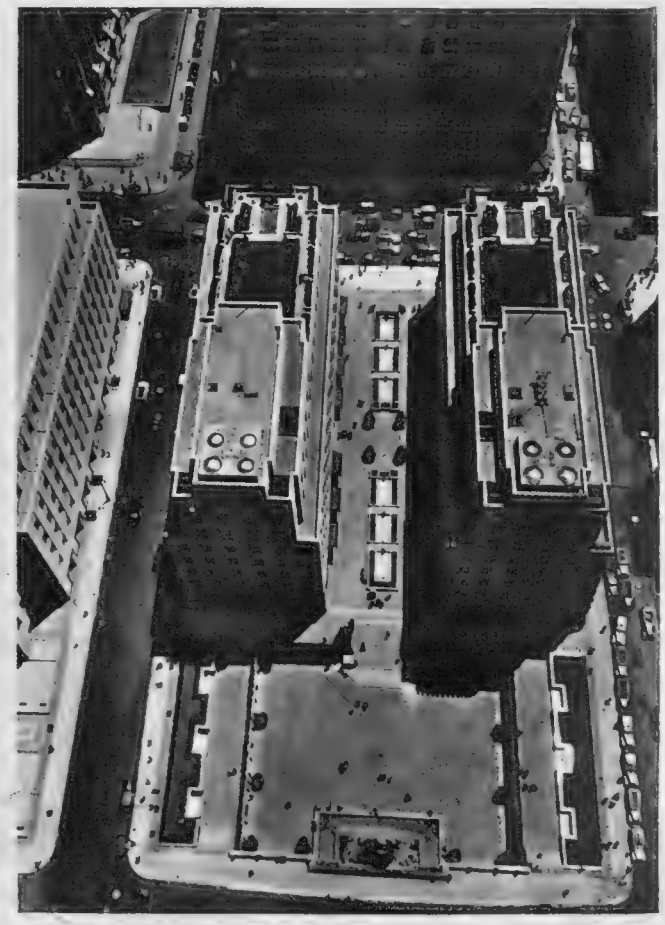
If the bomb fell in the street, it would, as elsewhere, make a deep crater, smashing the network of underground mains, but the blast would not fan out much. It would find relief by ricocheting from one side of the street to the other until it reached the top, when a certain amount of debris might deposit itself on the roofs. In the upward rush every pane of glass would be smashed, and cornices would be swept off. If the hit were close to the side-walk the near-by lower walls would be driven in and several storeys above would be loosened by the vibration or torn out by suction.

A direct hit on the *roof* of the skyscraper would hurt it most. With a delay-action fuse, the bomb would probably penetrate as many as ten floors: on exploding at, say, the tenth floor, it would blow out walls at that level and on the floor above. Two or three floors above that would in all probability be pulled down by suction. *In no case would the main steel framing of the skyscraper be materially damaged.*

Incendiary bombs would not penetrate beyond the topmost floor, unless the building had already been damaged by high explosives. The absence of fire danger, of course, would only apply to high buildings with concrete roofs. Surrounding smaller buildings (of the prevailing "Brownstone" materials with which most of New York's purely residential smaller buildings are constructed), would, however, be in the same danger from fire as in London.



NEW YORK'S FASHIONABLE SHOPPING CENTRE: Fifth Avenue, a deep canyon set between high cliffs, looking south from Forty-seventh Street, where many of the big stores are located



***On left*—The breath-taking Rockefeller Building known as "Radio City." *Above*—A roof-top view of part of the same building.** Of all the tremendous buildings of New York, the Rockefeller-financed "Radio City" must be the most colossal. It is an amusement and commercial city combined, and cost fifty million sterling to complete. On the left it is shown in all its majesty, as seen from the air; the view above shows the roof of one of its subsidiary wings. The building at the back is the famous Saks' store on Fifth Avenue

THE HUGE PACIFIC OCEAN MAY APPEAR AT FIRST TO BE A CONFUSED MASS OF THOUSANDS OF ISLANDS : But it will soon be seen that these group themselves into clusters, nearly all of which lie south of the line between San Francisco and the Philippines

THE STRANGE PACIFIC OCEAN

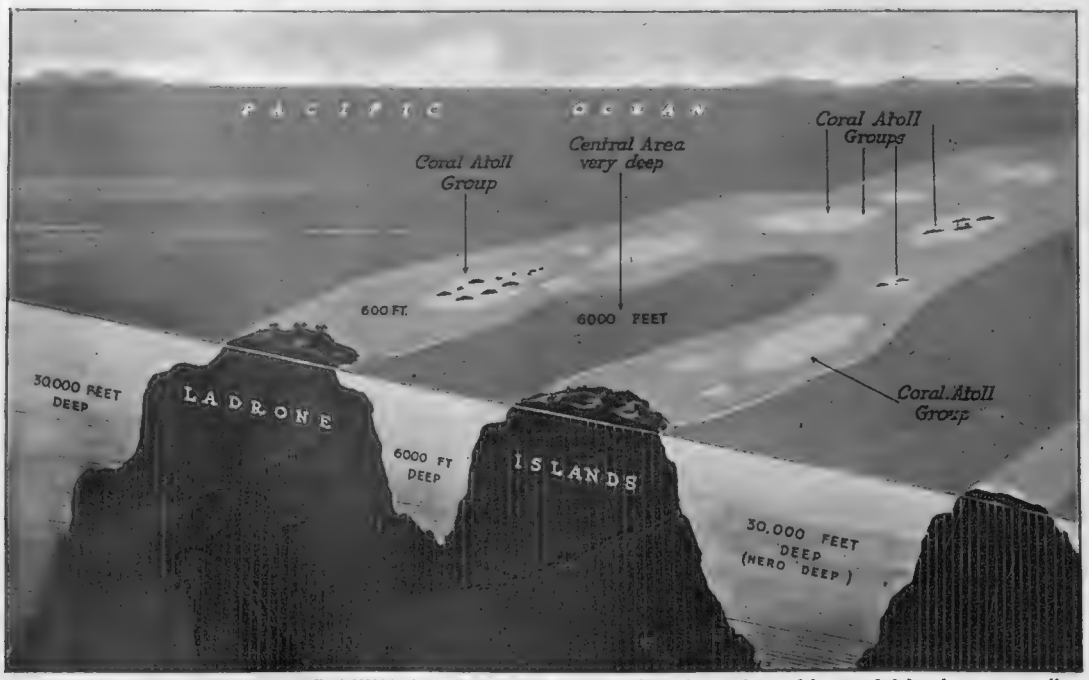
A Region of Coral Atolls and Immense Depths : Where Special Problems Exist for Submarines

The Pacific is the largest expanse of water in the world : from north to south it is fully 7,000 miles, with a maximum breadth of 10,000 miles. Its area is 40 per cent. of the total water surface of the globe. It differs from the Atlantic, not only in shape, but in its greater mean depth—and in its greater absolute depth. Off the Philippines, for instance, is the deepest spot in the whole world—the Nero Deep, which descends for over six miles !

There is no central ridge as in the Atlantic, but there is a marked contrast in form between the east and west halves. Towards the American side the floor is more or less uniform, the depth usually exceeding 2,000 fathoms ; islands are few and are volcanic in origin, and Deeps are few and small.

On the Asiatic side there are large areas less than 2,000 fathoms in depth, with many small volcanic and coral islands, in addition to the larger islands of continental type, such as Japan and New Zealand. At the same time, there are many large Deeps where the sounding line drops to 3,000, 4,000, or even 5,000 fathoms. Another feature of the Asiatic margin is the frequency of bordering seas, which vary very greatly in depth.

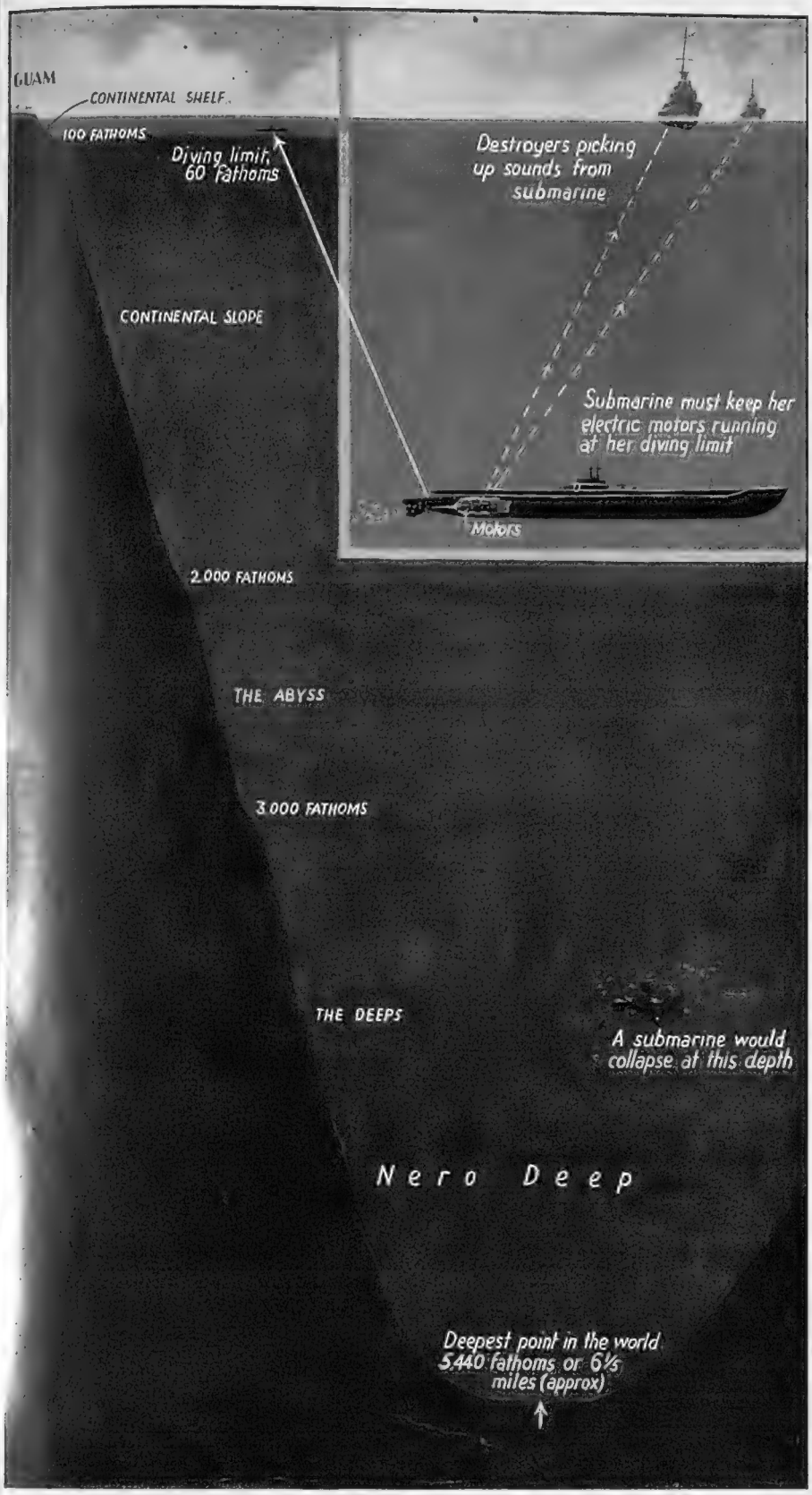
THE SUBMARINE IS FACED WITH SPECIAL PROBLEMS : There are few comfortable shallow waters where it can lie "doggo." It must keep its engines running and so reveal its presence to listening surface craft. This diagram shows the waters from Sumatra to the Philippines



HOW THE PACIFIC ISLANDS ARE BUILT UP IN GROUPS : Usually there is a fringe of islands surrounding an area of comparatively deep water. Outside these the bed sinks to the most profound depths

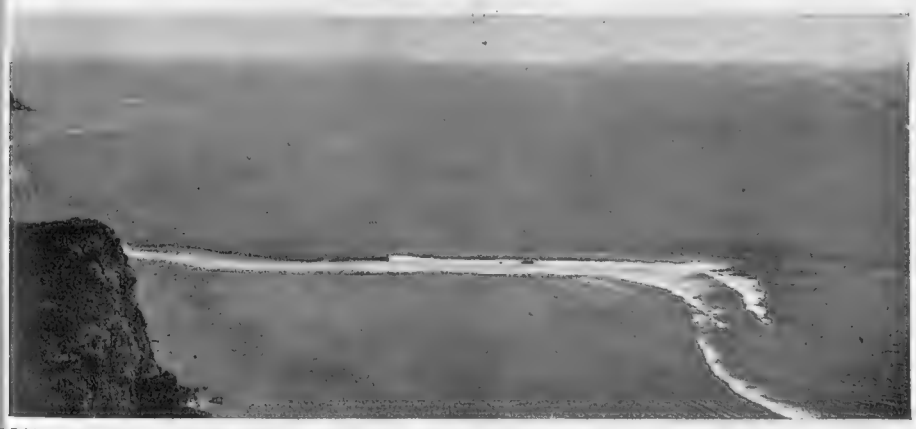
HOW THE CORAL ATOLLS OF THE PACIFIC RISE FROM THE FACE OF THE OCEAN : Sometimes they are big islands, sometimes only specks on the water

The islands of the Pacific are, many of them, extremely curious in design. Some have been thrown up as the result of volcanic disturbances deep down in the ocean depths ; others are of coral formation, built by the ceaseless work of millions upon millions of coral polyps over a long period of time. Amongst the smaller coral islets, a fringe of land usually encloses a central lagoon : here coconuts and palms flourish. The "reef" is a well-known occurrence throughout most of the islands of the Pacific



SOME OF THE SPECIAL PROBLEMS WHICH FACE SUBMARINE COMMANDERS operating in the vast Pacific Ocean—*Drawing by L. Ashwell Wood*

Submarine operations in the Pacific give rise to their own particular problems, chief of which is the enormous depth of water encountered—often with great suddenness. Off Guam, for instance, is the deepest known depth in the world—the Nero Deep. This is over six miles deep, or the terrific depth of 5,440 fathoms. The normal diving limit for submarines to-day is about 60 fathoms! It is obvious, therefore, that an enemy submarine, *when traced*, cannot escape from the listening devices of the hunting destroyers because her electric motors must be kept running to maintain her equilibrium, and she cannot lie silent on the bottom as in other parts of the world. In the course of time the submarine must surface to recharge her batteries. A submarine diving deeper would collapse long before the position shown in the drawing was reached, owing to the terrific pressure of the water on her hull. The names given to the various depths near land are indicated at the side of the drawing



PART OF THE BARRIER REEF IN THE FIJI GROUP OF ISLANDS : These reefs and the heavy seas which break over them make navigation difficult for the inexpert. But they also provide coastal channels of sheltered water for the launches and cutters, which play an important part in local transportation

AN ISLAND OF THE SOUTH PACIFIC OCEAN : This is Bird Island, a rugged rock which rises out of the boundless waters as a remote outpost in the Hawaiian group of islets. Because it is off the regular steamship lanes, few people have ever seen this lonely peak of land and its countless thousands of sea birds which here hide away from man to breed and raise their young

IN THE SOCIETY ISLANDS : The rock-girt mass of Tahiti : Sometimes the islands of the Pacific are vast in extent, at others they are just specks in immensity. Amongst the former is Tahiti, the mountains of which rise sheer from the water and tower up to a great height, well over 7,500 ft. Tahiti is the largest of the Society Islands, and is a French possession. The schooner *Cressida*, seen above, was on her way to explore the South Pacific regions

A REEF-GIRT COAST AND AN ATOLL IN THE FIJIS : It is by this spot that steamers from Australia and New Zealand usually enter the group of islands known as the Fijis. The line of breakers along the barrier reef can be distinguished extending beyond the small island on the right. Near the shore in the foreground is the fringing reef which makes landing by boat throughout this group a hazardous task

The LATEST OFFICIAL PICTURES from the LIBYAN BATTLEFIELD

THE VICTORY OVER ROMMEL'S FORCES AT GAZALA: Indian troops marching along the modern motor road into Cyrene (south-west of Gazala) past the ruins of the ancient city. The latter was founded in 631 B.C. by Greek colonists from the island of Santorin and became the chief city of Cyrenaica, the colony taking its name from its capital. Cyrene was famous for its medical school and was the birthplace of Aristippus

INDIAN TROOPS AND TRANSPORT MOVING DOWN A GOOD MOTOR ROAD INTO THE PALM-SHADED PURLIEUS OF DERNA, captured for the second time in twelve months. Not only was Derna a principal supply base for General Rommel; it is also regarded as the pleasantest and most beautiful of the Cyrenaican settlements

HUNDREDS OF GERMAN AND ITALIAN PRISONERS BEING MARCHED ALONG THE COAST ROAD TO TOBRUK HARBOUR where they were embarked for internment camps. Note the great number of British vessels in the harbour. On January 11 it was stated that the number of prisoners captured up to that date in Libya and Cyrenaica was 26,000, of which 7,000 are Germans with 200 officers, and 19,000 are Italians with 860 officers

AN AXIS ENCAMPMENT NEAR EL ADEM is here seen being subjected to an accurate bombing attack by the South African Air Force prior to its recapture

ENEMY GUNS, CAPTURED NEAR TOBRUK, which exhibit evidence of the effectiveness of British range-finding!

A SCENE AT EL ADEM AERODROME: A member of a British tank crew standing on his tank to break up a German aircraft found on the airfield after its capture

GERMAN PRISONERS BRINGING IN ONE OF THEIR WOUNDED after an engagement in the desert. The British guard is armed with a Bren gun, it will be observed

The World of Books—By Vernon Fane

LITERATURE FOR THE WAR-MINDED

The Identity of David Pilgrim; Eric Knight's War Novel; Evan John on a Commando Raid; C. G. Grey's Challenging Book on Bombers

FROM the wrapper of NO COMMON GLORY (Macmillan. 9s.), it appears that the author, Mr. David Pilgrim, is a schizophrenic. He exists, in fact, in the personalities of Mr. St. George Saunders, who wrote the famous pamphlet on the Battle of Britain, and Mr. John Palmer, equally famous, though perhaps not so widely, for a life of Molière.

I often wonder what goes on in collaborations. Who, for instance, writes what, and why? Which of these gentlemen first thought of writing this, the opening volume of a double-decker novel on the subject of James de la Cloche, the supposedly natural son of Charles II, about whom historians continue to disagree? Perhaps Mr. John Palmer had most of the say in the choosing, since in the course of the hero's academic career we are presented with a lively portrait of Molière.

ONE HALF OF "DAVID PILGRIM": Mr. Hilary St. George Saunders, who wrote the "Battle of Britain" and "Bomber Command" for the Air Ministry

Mr. Saunders, on the other hand, doubtless saw lusciously descriptive possibilities in the encounter between the youthful Charles and Marguerite de Carteret of Jersey. Both of them seem to have enjoyed the decisive action against the Dutch fleet in which their hero takes part, for the simple reason that he was press-ganged into it for daring to fall foul of a semi-royal half-brother.

It is a very good yarn, full of colour and action, as an historical novel should be. It breaks off at an early and interesting point in the career of James de la Cloche of Jersey, and there is a promise of a sequel which will take him to the ripe age of twenty-five. I, for one, could do with a little more of that delightful character Snubs.

THIS ABOVE ALL, by Eric Knight (Cassell. 9s. 6d.), is a very long novel, having the war as its background. It opens in a seaside place on the South-East coast, just about the time when the guns were rumbling across the Channel, and the period of the *sitzkrieg* was dramatically coming to an end.

Using a Galsworthian technique, Mr. Knight introduces a variety of characters, all of whom have a contrapuntal importance to his theme. So the scene shifts at times as far as the foothills of the Rockies. The various characters are types which, although they reveal themselves in restricted personal relationship to the war, serve to underline the author's main line of criticism of this country's attitude in general both before and after the outbreak of war.

His hero, in whom he indulges all the more obvious complexes of a man of the people who has, in his time, been denied certain social and educative privileges, has come through Dunkirk both physically and psychologically wounded. The heroine, Miss Prudence Cathaway, his faithful and long-suffering sweetheart, decided to attach herself to him, though without benefit of clergy, after a brief encounter on a dark night under a haystack. Miss Cathaway was in the Waafs.

Mr. Knight, like his hero, prefers the aggressive approach, and in consequence the argument and the characters run at times to more than life-size, while the love-story lacks nothing in physical detail. Two distinguished writers resident in America have described this novel as "challenging, significant and tremendous." It is as well to let it go at that.

ROUGH PASSAGE, by Gilbert Hackforth-Jones (Hodder and Stoughton. 8s. 3d.), carries a quotation: "I have a great respect for the young Naval Wife, who gets a rough passage, poor Lady." It opens with a Prologue describing an armed merchant cruiser on convoy duty in action against enemy aircraft. It was the twenty-first anniversary of the captain's wedding.

The scene shifts to Devonport in 1919, and to the wedding ceremony itself; thence to Gibraltar, Malta and to Hong Kong. There is a good deal about the China Station, and a lot about life afloat and ashore in the Royal Navy in peacetime, all with that racy directness which is characteristic of a good yarn of the sea. In full cycle it gets round again to the armed merchant cruiser on convoy duty, this time standing to to defend her charges against a vastly superior enemy. Mr. Hackforth-Jones takes his place worthily among the masters of this type of fiction.

Mr. Evan John, whom my readers will recognise as the author of those splendid historical novels, *Crippled Splendour* and *Kings' Masque*, abandons fiction for the historical present in LOFOTEN LETTER (Heinemann. 3s. 6d.). Mr. Evan John, in fact, was a pioneer member of one of those Commandos which have won fame in the raid which he describes, and in subsequent ones upon this and other places.

The word "Commando" does not appear in his narrative, but he may as well accept it now, for it is a name which will live long in the glorious history of British arms.

Lofoten Letter is a factual account of what happened on that first raid. It is enlivened by a number of poignant and pregnant asides by the author, particularly on the subject of discipline, and from flashes of pen-portraits we get some of his comrades on the expedition. I like particularly his note on the way home.

"Listening to B.B.C.

"Very satisfactory. True, modest and sober—and therefore more effective than highly coloured lies."

I also like what he calls a "pleasing International Incident." He was taking home a captured Norwegian flag to his little boy of eight, but obviously he could not resist yielding it to the Colonel Elström who wanted it so much.

Mr. C. G. Grey, who knows more about the history of aeroplanes and the development of aeronautics from the beginning than any other living journalist, has produced a valuable companion volume to his *British Fighter Planes*. This one he calls BOMBERS (Faber and Faber. 6s.)

The evolution of the bomber makes a fascinating story, and in this book, which is of equal value both to the layman and to the expert, Mr. Grey traces its development from those comparatively crude crates which did the job in the last war, to the modern machine whose design varies with the kind of work it is called upon to perform. Bombers, he points out, are the artillery of the air, and have as much variance in type and performance as do the guns of a modern army

With the development of the bomber, too, we can look forward to the promised time when war shall be no more, and these long-distance, high-speed machines can be adapted to more sensible uses and become essential and effective parts of an international transport system

Both in text and illustration, Mr. Grey traces the evolution of the bomber from the day when Mr. Claude Grahame-White first projected a 100-lb. weight from underneath a biplane of the contemporary pusher box-kite type. From then he carries the story on to the earliest experiments in the last war, to the formation of the first Independent Air Force, which was the first striking bomber force. There is much interest in his reminder of those operations which took place between wars and in the development of the aeroplane in offence in that period. In these developments, civil air transport was playing its part, and the history of those years between is as full and forceful as Mr. Grey can make it.

In the present war, the bomber has perhaps been the most potent and most feared weapon of all the belligerents. Mr. Grey tells us how they have been used and misused, and gives some indication of the tremendous developments which have taken place in the manufacture of recent types. I hope he is justified in at least one of his prophecies. "When one considers that by no possibility could the Japanese put as many as five hundred aeroplanes into one attack, and that any British home or Dominion fighter squadron could take on Japanese aviators in a ratio of ten to one, judging by what our people have done with the Germans and Italians, there need be no anxiety about air attacks on Malaya."

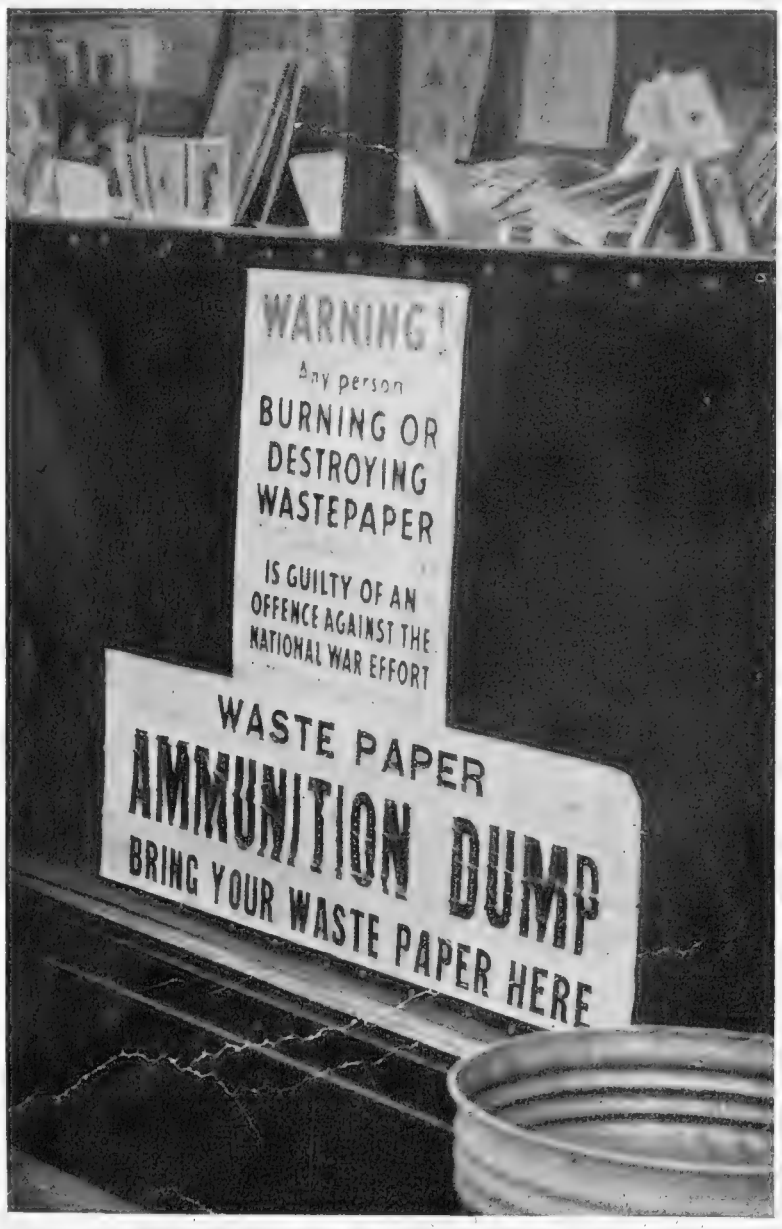
THE GREAT WITHIN by Maurice Collis (Faber. 21s.), is a large and well-illustrated book of a type which I suppose must now disappear from the bookshelves under the stress of paper shortage.

It is, in fact, a fascinating chunk of Chinese dynastic history beginning at the end of the Ming dynasty. "The Great Within" is the Chinese name for the Forbidden City or the Palace of Peiping, and Mr. Collis begins his dramatic story with its sack by the bandit Li, which drove the surviving Ming Prince into exile to Burma, and, through the dissembling of the infamous General Wu, made way for the usurping Manchus.

He goes on to describe the reign of the Manchu dynasty to the days when it was to be finally overwhelmed by a movement which the Ch'ing failed to understand.

As the publisher is careful to point out, this book is not addressed to the specialist, but to the general reader, who will find it lively, interesting, instructive and at all times entertaining

IT CAN'T BE SAID TOO OFTEN!



EVERYBODY MUST HELP: The great nation-wide £20,000 waste-paper chase is in full swing. The Marylebone Council (as only one instance) have opened seventeen shops where the people of the Borough can deposit their waste

WILL YOU DO YOUR PART NOW?—WHEREVER IN BRITAIN YOU MAY BE

THE SHAFTESBURY HOMES AND "ARETHUSA" TRAINING SHIP

This Society has received yet one more token of real gratitude from a parent for what was done for his son while in the *Arethusa*. His son died of pneumonia whilst on leave from H.M.S. ————, and at the father's request some friends sent a valued gift of £9 instead of spending the sum on wreaths. This splendid amount will pay for the keep and training of a boy in the *Arethusa* for nearly two months. Flowers in wreaths are beautiful, but fade and die all too quickly, but the flower of "a chance in life" to some poor boy will never fade. Will you, to whom bereavement has perhaps come, do likewise? Address your gift, 164, Shaftesbury Avenue, London, W.C.2.

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

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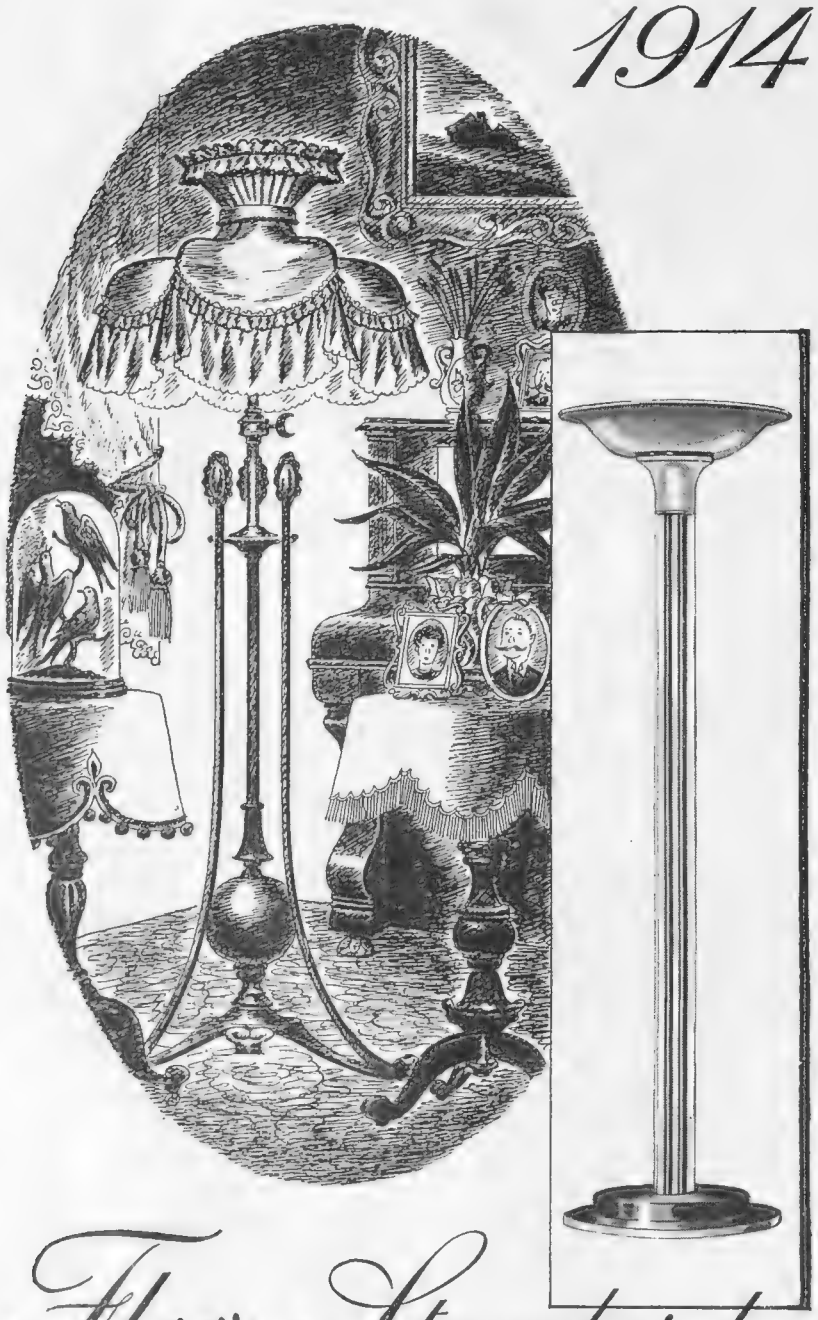

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THE contrast between the elaborate silk covered lamp standard of 1914, and its modern elegant counterpart symbolises the rapid and continuous progress always being made in the electrical industry. Science did not stand still in 1914 and to-day the G.E.C. is keeping abreast of developments and improvements that will result in better electrical equipment for the home when this war is over.

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are severely restricted — restricted, in fact, to such an extent that their use for toilet purposes is no longer fair to those who need them for strictly medical reasons.

¶ HEALTH MUST take priority over everything, and the Crookes Laboratories have therefore made arrangements that such supplies of these products as are available shall be issued only for essential purposes.

¶ SUPPLIES OF the above preparations are therefore now obtainable solely on Medical Prescription. These prescriptions, which must be obtained from doctors, can be presented to any chemist, who will then be able to order the necessary supplies.

¶ THE CROOKES LABORATORIES are confident that the public will welcome this decision, which has been taken entirely in the interest of those who should at all times have first call on scientific preparations for their treatment.

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The Caldecott Community

Asks for help from *every* lover of a child

By THE EARL OF LYTTON

THE CALDECOTT COMMUNITY is a boarding school in the country for boys and girls from "broken" homes—that is to say, homes which have become unhappy or difficult owing to the death or incapacity of one of the parents or other domestic trouble which disturbs the normal home life of the child.

It began existence 30 years ago as a country boarding school for children from working-class families. It was called "Caldecott" after Randolph Caldecott whose delightful illustrations brightened the children's books of the generation of its founders, and it was called "Community" because, unlike other boarding schools, the teaching staff and the children together share the household work as a community.

From the outset there were more applications than we could accommodate, and the Committee gave preference to the cases where the need appeared most urgent. Thus the school came to be filled with children from homes that for one reason or another had been upset, and the teachers soon discovered that these conditions had cast a shadow over the lives of the children which it became their duty to remove. This experience revealed a real social problem—how to save children from the damaging effect of "broken" home conditions. To solve it, the Caldecott Community has worked with conspicuous success ever since.

Caldecott has no endowment, no State grant, and the fees paid by the parents are far from sufficient to cover the cost of housing, feeding and teaching. The gap has to be filled from charitable sources, and up to the outbreak of war substantial sums were raised annually for us by organised entertainments, a source of income necessarily stopped by the war.

Almost every war experience has been ours at Caldecott. At first, our children had months of sleeping and teaching in cellars; then the Government Authorities gradually deprived us of our premises, and, in January, 1941, we had to move to far-away Dorset.

Extra boarders, extra work and responsibility have been showered upon us. For instance, the Home Office and the Board of Education send us "difficult" cases for which they are respectively responsible. But the number of such cases we can take is small, because for their readjustment the presence of a large proportion of normal children is essential.

The Founder and educational genius of the school, Miss Rendel, struggles valiantly with the difficulties the War has created. The Governing Body do their utmost to relieve her of financial anxiety, but in spite of all effort, debts mount up alarmingly.

Such an institution *must go on*. Its list of Patrons and the support of Government Departments show how highly it is regarded nationally. Above all, it is work badly needed, for a type of child especially deserving, and at present Caldecott is the *only* school dealing successfully with this problem.

So, through a Yorkshireman's kindness, we make this public Appeal to child-lovers wherever this great Newspaper circulates.

Of your bounty, I ask you to spare a mite for Caldecott. The work is great, the need is great, and I hope the response to this Appeal will be great too. Further particulars, if required, will be sent you on request.

This is an Appeal to the heart of every child-lover. Will you, please, help us not only to dissipate the rising shadow of debt, but to carry on and to extend our very worthy work?

Kindly address your notes or cheques to me, The Earl of Lytton, Caldecott Community, Hyde Heath, Wareham, Dorset. Everything will be most gratefully acknowledged.

Thank you, very sincerely,

Lytton

THE CALDECOTT COMMUNITY:

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Vice-Presidents:
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LADY VIOLET ASTOR
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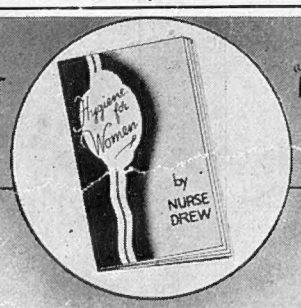

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PRODUCTS

FOR FEMININE HYGIENE

APPROVED BY DOCTORS

VICTORY

This illustration is an artist's impression of Victoria, the Latin Goddess of Victory. taken from the statue on the Victoria Memorial opposite Buckingham Palace.

MUST BE OURS

Over 70,000 died from Cancer last year. Their tragic end should resolve us all to make even greater efforts to combat and defeat the grave menace of this disease.

Here at the Royal Cancer Hospital our resources are being extended to the utmost limits. The work of TREATMENT and RESEARCH, despite the War, continues unabated. But the mounting costs threaten to impede our way to success. Will you please help us in this humane task?

The Royal Cancer Hospital
(FREE)
FULHAM ROAD, LONDON, S.W.3

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Just a part of the

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LURKING danger, ceaseless vigil, constant strain, these are the travelling companions of the men "that go down to the sea in ships." And when the ship makes port at last, the turn round must be quick. Just a few hours ashore before the long voyage starts again.

For many years Salvation Army Homes in ports all over the world have welcomed sailors. To-day, all the amenities of Red Shield Clubs are open to men of the Merchant Navy, too. There they can relax in comfortable surroundings, enjoy a tasty meal, find the good fellowship and helpful service for which the Red Shield stands.

Your gift will help us to keep on helping them. Will you please send it to-day?

General Carpenter,
101 Queen Victoria Street,
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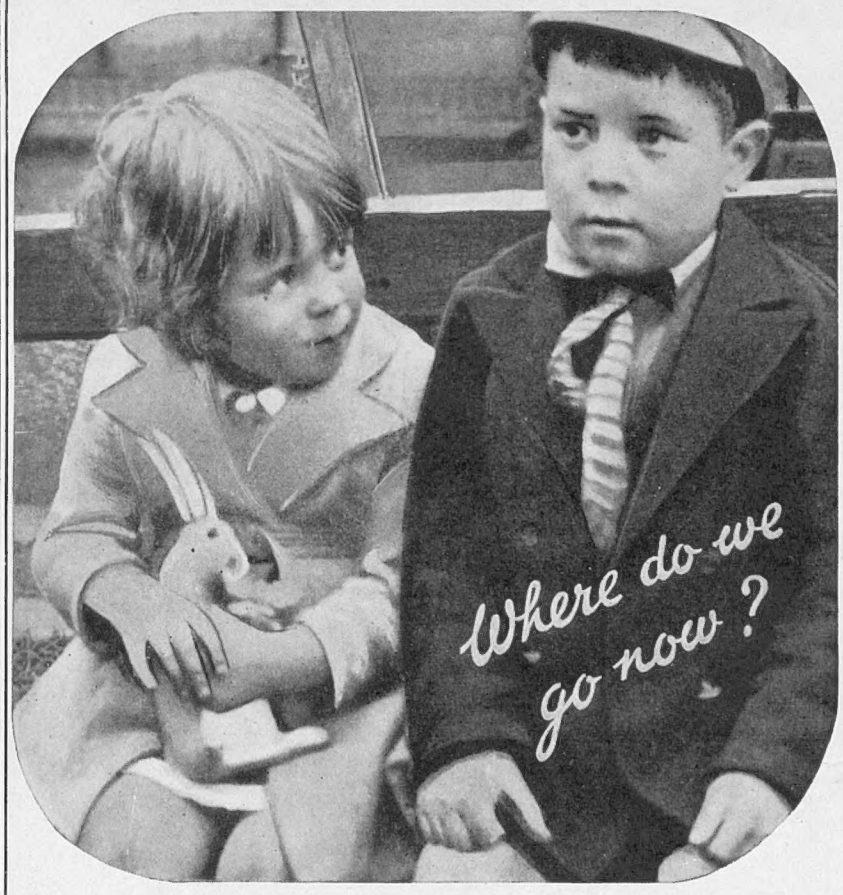
THE ARMY THAT SERVES ON EVERY FRONT

The WAR and HOMELESS CHILDREN



THE SOCIETY CAN PROVIDE THE ANSWER WITH **YOUR HELP** | **6,251** CHILDREN TO FEED AND CLOTHE EVERY DAY

4 CHILDREN RECEIVED EVERY DAY. **1,966** TAKEN FROM DANGER AREAS INTO **78** SPECIAL WAR NURSERIES.

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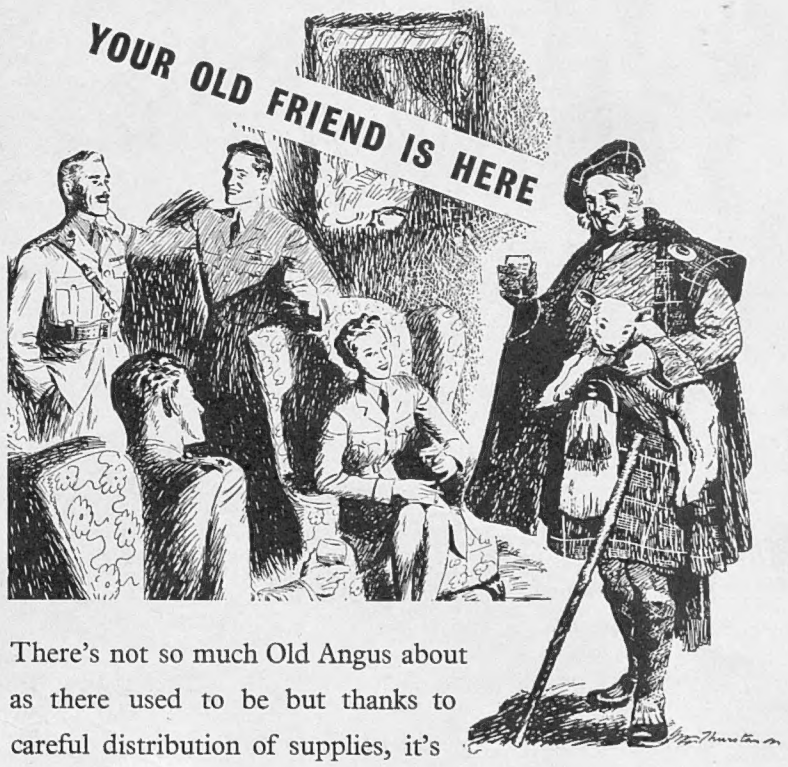

There's not so much Old Angus about as there used to be but thanks to careful distribution of supplies, it's still possible for old friends and new acquaintances all over the country to enjoy the flavour of this noble whisky.

CHOSEN FOR YEARS BY CONNOISSEURS

OLD ANGUS

A NOBLE SCOTCH—GENTLE AS A LAMB

SAUCEPANS MADE SPITFIRES—OLD BOOKS MAKE SHELL CASES. TURN THEM OUT NOW—THE NEED IS URGENT!

The Mill near Wijk bij Duurstede, by Jacob van Ruisdael (1628-1682)

The ever-turning wheel...

A world without wheels. . . . Impossible to imagine, so all-pervading is their influence. The power the wheel generates grinds the flour for our bread, weaves the cloth we wear, shapes and creates the materials that house us, brings these essentials of our lives to us. . . .

And when you think of wheels, what names come into your mind? Why, Daimler, of course, and Lanchester and B.S.A. for cars. But the wheels within wheels also make B.S.A. Tools and Machine Tools, Jessop and Saville's Special Steels, the Monochrome Hardchrome Process, Daimler Buses . . . magnificent productions that have helped to make British engineering famous throughout the world.

BSA*

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Lanchester Cars
B.S.A. Bicycles
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Jessop & Saville Special Steels
B.S.A. & Burton Griffiths Tools
Monochrome Hardchrome Process
B.S.A. Guns and Rifles
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